

695

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CCAATTCAT ACCGATTTCA ACGTGGCTAC CTTCAACCTC ATGGTCAATG GCTTTCCCGA	16320
TATCGTGAAG GAATCCAGCA CGACGGGCAA GAGCCGCAAT TTCACCAAGT TCGCTCGCCA	16380

TGATACCAGC CAACTTAGCA ACCTCAATCG AATGGCGCAA AACATTTTGT CCATATGAAG	16440
TACGGAACTG CAAACGTCCC ATAATCTTCA TCAAGTCTGG ATGAAGGTTT GGCGCACCAA	16500
TTTCATAGGC AGCAGCCTCA CCGTATTAC GAATCTTATT GTCAATCTCT TGACGGTTTT	16560
TCTCAACCAA CTCTTCGATA CGAGCTGGAT GTATACGACC ATCTTTGAGC AACATTTCCA	16620
TAGTCATACG GGCAATCTCA CGACGAATCG GATCAAATCC TGACAAGGTC ACCACTTCTG	16680
GTGTATCGTC GATAATCACA TCGACCCCTG TCAAACCTTC AAAGGTACGA ATGTTACGAC	16740
CTTCACGACC AATAATGCGT CCCTTCATAG TATCGTCTGG CAGATGAAC GTTGAGTTTG	16800
TTGACTCCGC TACATATTCA CCAGCGATAC GTTGATAGC TTGAACCAAG ATGTCCTTGG	16860
CCATTTTGTC AGAACGTTCC TTGACCTCTT GCTCAGCTTC GCGAATGCGA CTGGCAATCT	16920
CCCTGGTCAA GTTTTCCTCT GTCTGAGCCA AGATAATATC TCGTGCTTCT GCCTGAGACA	16980
GCGCACCAAT ACGCTCTAGT TCTGCTCTT TTGTCTTTC GACTTCCTCT AATTGCTCTT	17040
CACGCGCATC AAGGTTTTTC GCTCTATCAG AAATACTTTG TTCTTTTTGT TCAAGTGTTT	17100
GTCTTTTACT CGTCAAATTG TCGTCCTTAC GGTCAAGGCT AGTAGTCTC TCTGTCAAAC	17160
GACTTTGAT TTGTTTGAGT TCTTGACGTT CTGATTGAA TTCAGCGTCC ACTTCTTCAC	17220
GGTATTTTCT GGCTTCTTCT TTGGCCTCCA ATAGTGCTTC TTTTPTAAGA GACTTGCTTT	17280
CACGTTTGGC TTCATTAACA AGTAAATCCG CTTACGCTC AGCTTGCCA CGTAAATTAG	17340
TTGCTTCTTG TTCAGCATTT AAAAGCATCA ACTCTGCAGC TTCTGAGAT GATTTTATCT	17400
TAGCTGAGAT GCTGACATAT CCAATGACTA AACCAATGAT GACGGCAAAA ACAGCAATCG	17460
CAAGCGACAT GATTTCCATG TTTTACCTC ATTTTATTGT TATTCGAAT GACATACAT	17520
CTTTTACATT CTACCATAAA AAAGTGATTT TCACAAACCT AAAATAGAAT ATGTTTTGAG	17580
GAATTTGGAA CACATTTACC AAAATAAACT TGTGTTTAG AAATAGTAGT TTAGTAGAGA	17640
CTTGAGAAAA AGCCTACCTT TCAATAGACT TAGTAATGAT CTTTAAAGGA CAAGAAAGCC	17700
ACGCTATCTC CATCCATCAT ATAAATCAAG CGATTTTCTG CATCAATACG CCGTGACCAG	17760
GCTCCTTGGT AATCATATTT GAGTGGTTCT GGTTTACCTA TTCCTGTAAA GGGATCACGT	17820
TGAATATCCT TGATTAGTTT ATTGATTCTT TTTAACGTTT TCTTATCCTG ATTTTGCCAG	17880
TAGCAATAAT CTGCCCAGGC ATCTTCTGTA AACTTGAGCA GCATTTCTTA CTCCTCAATA	17940
ACATGGACCT GAGTACTTCC AGCACGAAC TGAGCCATTC CTCGCAAAAC CTTATCAGAA	18000
AGTTCCTTAT TTTGAGCAAT TCTCAGGGTT TCTTGATAC TATCCCACTC ACTCTTGAA	18060
AGGACTACAA TGTCTCATC TGGATTTTTA TTGACCACCG TCAAAGGCTC AAATTCATCA	18120

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TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC 18180
ATAACCATAC CTCGTTTTC TAGCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA 18240
GGAACTTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA 18300
CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTGAC GCGATTGAA 18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT 18420
TAGTTTGTTC CTATTC 18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7001 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTCTA TCACAGATAA TATTCGGTAT GTTGTGGAG GTATTGAAAT 60
AAACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAATC TTTTCGAGAC 120
AGAAATTTTG AATGAAGATT ATCCTATTTC AGAAATCAAT TCCACCATTA CCAATATGAT 180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATTG GCTTATCAAT 240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACACCCCA TATGGGAATC 300
TTTTAATTTA TTAAATGTAA TTAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT 360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCG ATAACCTTAT 420
TTTCTACAC GCTGGATTAG GTATTTACAC TTCCTTTTTC ACAAAGAAA AAATAGGAGC 480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA 540
TTGTGAATGC GGAAAAAAG GTTGTTTTACA AACATATATT TCGGATGCTT GGTTAATCAA 600
ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAAAAGCC TTGTAAAGAC 660
TGAAAAAGAC ATTCATTAG ACACCTTTT AACGGCTTAT AATTAGGCG ACTCCGCTTT 720
ACGTCAACAA ATTGATAAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT 780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC 840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT 900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAAGT ATAGGAGCTT GTGCATTAGC 960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA 1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT 1080

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AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
ATTATATATTA AAATAACTTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
TATGAAATTC TCATTTTGT TTTTACAATT CTCCTTAGTT AAATCTTGT TAATATATGT	1320
TTTACATATA GTATTTAGCG CCACATAGTA CTGAACTCTC TCCAAAAACG GTTATTCCTC	1380
TTTGAATAGG GCGTTATCAC AAGAAAAGCA TCTCCACGTT TCAACTTCAT ATGGCTCAAA	1440
AACAATCAAT TGATGCTAAA ACCTGTACCT AGATGTTTCG GTTCATAAAA CCATGAAACT	1500
GTAAAAGTGG ATGAAATGA TAGCGATAGT CAAATCAAGA GGCATCATAA CTCTAAAAAG	1560
TCACAATATA TAAGTTCATC CTCGGAAAAA TATCATTCTA ATTGTTGAAA TGCCTACATG	1620
AAAAGAAACG TCAAATGCTC ATGAAACAAC GAATACAGGT ATCAAACTA TGACAAAACA	1680
AATCCCTAAA TTACTAAAG ACACTGCTCA ACTTTACACC TGTAATGGT TGTGTATAA	1740
TAAAGTTACA AAGATGTACG ACCACACTGT TGTAATCAT AGTGTTTCGG AATATATTAC	1800
TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AAATATGTCA	1860
GTGCTTTGGC ATTCCTAGCC TTCATATCAT TTAAAGAATT CTATAGACAA AATTTTTC	1920
AATACAGACA CTCGTAACAA CTGCTTCATT TTTCTACCA CATATTTAGG AACAGGATAA	1980
GATACAAGAG TATTAATCCA TAGCTCAGTT CTATACCAAT CTAAGACAAA TAAGCTAAAA	2040
AAACGATTGA TAATAAGCAA ATAGATTCCA AATTTTCTCT ATCTGCTCAT TTAATAAAC	2100
AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCAG ATCACACCGA AAATCTTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAAA AACTCGACGA TAGTACAAAC ATTATCATA	2220
AGGATTGACT TCCTAAATTA TATACTTTAG TAAGGTTTC GGATAAGAAA AAAGGTTTAT	2280
TTTACATTC TAAACATTCT TTTCTAAGAT GAAAAACAGA ATTTTTCGAT TGTGATTTAA	2340
AGCAACAAGA AGATTTTCAG TATCATCCTA TAGATACGAG CTAATTAAGA AAACTACAT	2400
TTTTGAATAT AACTACAAT AATATAAACT AAATTTTATA GGAGGAAGAC AATGGATTGG	2460
TACGATTATA TGATACAGGC ATCCAAACAA TCACAATTCA ACGCAAGCCA TTGGTTTCGC	2520
TATTTGCGAA AAGTTATTTT TGAAGACTAT TCTTATTTAA CAAACCAAGA TGTAGAAAAG	2580
TTGCTAGACT CCAAAGAAT AACCCTTTT CAAAAAATTA GCTTGAAGTA TGCCTTTCAA	2640
GAGCATACT CAACTCATAA ATATGTGATT TCATTAAATA AACCTGCTAA GTTAACCAAT	2700
GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGGTCT TCCAAGCCCT	2760
AAATAAGGAA TTAATTCAGG AAAATCTGAC TTTAACAATT ATCTGTGTCG GTGGTTATGT	2820

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CTTAGAATAT CATGGTTTAC GTGCCACACA AGATGTTGAT GCTTTTATGG CTCTATAATA	2880
TTTGTAGTGG GTAAATCCCC TATGGATATT ATGGAGCCTA TTTTGTGTA GAAAAAAGT	2940
CCCATATGAC CTATAATGAA AAGCGACAAA ACAACTCATT AGAAAGAATC ATATGGAACA	3000
ATTACATTTT ATCACAAAAT TACTAGACAT TAAAGACCCT AATATCCAGA TTTTAGACAT	3060
CATCAATAAG GATACACACA AGGAAATCAT CGCCAACTG GACTACGACG CCCCATCTTG	3120
CCCTGAGTGC GGAAACCAAT TGAAGAAATA TGACTTTCAA AAACCGTCTA AGATCCCTTA	3180
CCTCGAAACA ACTGGTATGC CTTCTAGAAT TCTCCTTAGA AAACGCCGTT TCAAGTGCTA	3240
TCACTGTTCA AAAATGATGG TCGCTGAAAC TTCTATCGTC AAGAAGAATC ATCAAATTCC	3300
TCGTATTATC AACCAAAAAA TTGCGCAAAA GTTGATTGAG AAGATTTCTA TGACCGATAT	3360
TGCTCATCAG CTGGCCATTT CAACTTCAAC TGTCATTGCG AAGCTCAATG ATTCTCACTT	3420
TGAGCATGAT TTTTCGCGTC TTCTGAGAT TATGTCCTGG GACGTTGAAA CAGTCGCGGG	3480
AGTGACTGTT TCAATCGGGA GATGGAGATG AGCTTTATTG CGCAAGATTG TGAAAAGCTC	3540
GATATCATCA CTGTTCTTGA AGGTAGAACA CAAGCTGTCA TCCGAGATCA CTTTCTTAAA	3600
TATGATAGAG CGGTCCGATG TCGCGTCAAA ATTATTACTA TGGATATGTT TAGTCCTTAC	3660
TATGACTTAG CTAGACAACT TTTCCCGTGT GCTAAAAATG TTCTTGATCG CTTTCACATT	3720
GTACAACATC TTAGCCGTGC TATGAGTCGT GTGCGTGTCC AAATCATGAA TCAGTTTCAT	3780
CGAAAAATCC ATGAATACAA GGCTATCAAG CGCTACTGGA AACTCATTCA ACAGGATAGC	3840
CGTAAACTCA GCGATAAACA TTTTATCGC CCTACTTTTC GTATGCATTT AACCAATAAA	3900
GAGATTTTAG ACAAGCTTTT GAGCTATTCA CAAGACTTGA AACATCACTA TCAGCTCTAT	3960
CAACTCTTGC TGTTCACATT TCAGAATAAG GAACCGAGA AATTTTTCGA ACTTATCGAG	4020
GACAATCTTA AGCAGGTTCA TCCTATTTTT CAGACTGTCT TTAACCTT CCTCAAAGAT	4080
AAAGAAAAGG TTATCAACGC CCTTCAACTA CACTATTCTA ATGCCAACT GGAAGCGACC	4140
AATAATCTCA TCAAACCTAT CAAGCGCAAT GCCTTTGGTT TTCGAAACTT TGAAAACTTC	4200
AAAAAACGGA TTTTATCGC TCTGAATATC AAAAAAGAAA GGACAAAATT TGTCTTTCT	4260
CGAGCTTAGC TTTTTCCTCA CCACTACAG TTGACAAAGA GCCGGAAAAA GGAACAGCCT	4320
TAGCTTTCCT TTCATTTCTT TTTATTTCCC TCGTAGTAAA CGTGCTAGCT TCCACAAAAC	4380
AAACAGGATT CCCAGAAATG CCAGTACCAC TAGCCACCGG TACAACCATG GAGAGGTTGC	4440
AACACGCGAT ACAGATTGTC CTTCTTTCGT AAAAGCAACC CTCGCACTG CAGCTGTTTG	4500
TGGATCTGAT TTTTGATAAA CAGCGACTCG TTCAAAATTC ACTAATAAGC GTTTATTAAA	4560
GGTAGGAATC GGATCGCAGG TTATCAAGGT CATGATATTT TTAGAGCTAA CCGATTCTAA	4620

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TTTTTCCCAT TCCGACGGTA AAATAATCTC TGTGTCCATC ATCTGATATT CTACAATTTT	4680
CTGGCCATTA TCATAATAAA GAGCATCTCC AACTTTTAGC TGATCCAAAT GGCGGAAAAA	4740
GACATGGCTT GGCTCTGCAC GGTGCCCAGC AATCACTGAG CGAATCCCTG TACCATCCAG	4800
AGGCAGCGGT GTACCATCCA CATGAGCCAA GCCCATCCCT AAATGATGAT AATCTGCTCC	4860
CAAATAAACC GGCTCCATGA TTTCCAAACT TGGAAATAGAC AAGTAACCAT AGACTGCATC	4920
AGGGTCGTCA GACACTTGGT AATTGACCTC ATATCCCTCC GCCAAAAAG GATCTACAAT	4980
GCGATTTTGC GAAGCCAAGC GTTGATTGTA GGCGAGAGAA TGGTTCGTGTT GTTCTTGGA	5040
CATTTAGTTC GTCATGAATT TCACAAATGT AGCATGACCT TTCACCTGTC CAAGAGACTG	5100
CAACACCATC TGTCCTAAAC AATAAATAGG AATCAACAG GCTACCAACA TCAACAAGTA	5160
TCCCAATAAG GCTCGTAGTT TAGTCCTTGA CATGACGCCC CTCCAATTGC TTTTCTAGTC	5220
CTTTGACAAT CCGTCGATTA CGATACACGC GATACAGCAA GAGAAGGATG ACCGCCATCG	5280
CTCCTAGTAA TAACCACAAC CAGAAATGCC CACGCTCTCT CACCGCTCGA TTCCGCTCTG	5340
CAATTGGTGC CGTATACGGA ATCCGCTTCC CACGTACCAA CAGACGATGA CTGTTAATCA	5400
TATACGGTGT ACAAGTCAAC AAGGTGCGAT AATCTTCCCC ATGTTGAATC AAGACAGGCT	5460
CAAAGTCATT CGGCTCCACC GTCACCTATCT GATCCACTTG GTAGGCCAAC ACCTGATCTA	5520
AAACGTGAAG ATAAAAGATA TCCCCTTTTT TCATCTTATC CAATTGACTG AACAATTCTG	5580
CCGTTGGCAA TCCTCTGTGA GCAGTGATCA CTGTATGGGT ATTTTCACCT CCAACAGGCA	5640
GCGAAGCCCC TTCTAACAGC CCTGCCCCCT TCTGAAGAAT GTCCTCACTC GTTCCGACAT	5700
ACATCGGAAT TTCCTGATCA ATCGCAGGAA TTTCCACATA GCCAATCCGC TCATGGACCT	5760
TTAGCATATT GGCATATTCT GAGACGCCTT TCTTTTCTC TTGCTCTGTA AAAGGATCAA	5820
GAATTTGAGA TGGTTTCAAG GTCGCATTGA AGGCTTGAGC CAAGCGCCAA CGCTCCTCAA	5880
GTTCTGCCTT ATCCATCTGG GAAACCGTCT CATCAAACCTC TTTAATAACC TCGTTTGACT	5940
CAATACGATA ATAATAACGA GACACCAATG GATATATCGC AACGGCGAAT CCTACTAAGA	6000
AAATCAGAAG AAGGATCAGC GGATGTTTCT TCTTTTTTGT GCCTTTTTTT CGTGAACGTC	6060
TACTGTTGTC CATCCTCCAC CTTCACTTCC TTCCTTGCTG CTTTCAGCGC CTTCAAAGCC	6120
TTTTCCGGTT GTTTTTTCTT CTTGCGCAAG CGTCGAATAA TCCATAAAAG AATCACAATC	6180
AAACCAACTG CCACATAAAA CAGGTAGCGA TAGAGATGAC TGAGTTTGTT TGCTGCAATA	6240
AATTCCTCCT CAACCTCTGC TACGTACGGT ATCCGATGCC CCCGAACCAA TAGACGATGG	6300
GTATTGATCA TGTATGGCGT ACAAGTCAGC AAGGTCACAT AATCATGACC TGGTACAATC	6360

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AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAACTTA TCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTTCTTCAT TTCTTCGAC	6720
CAAGGATCGC CACTACTAC ATTATTCAA GAGTCATTGA AGGCTTGTGC CAATTTTATT	6780
CGTTCATCAA TGTGAGCTC ATCCAACGTT GCTTTTTCCT TATCAAAGTC AGCAATTTGT	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTTCGTT TTTGCTTTTT TGTTTTACC	6960
ATTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTTAC CACCGTCCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTGA AAAGTGTGCG CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTAGGGT	120
TTTAGTGAAA TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGCGGATAT CTCTTCTGT CAGATTTCCT TTAATTTCTT TAGCTTTGGC	300
GAGTCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCTTGTGTT TCAGCATTGA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTTCTCCT GTAAGTGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTC	600
AATCTTGACC TCAAGTGGCG ATTTGTCACC TAGCTTTTGA ATCTTGGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCAGT TTTTAAAGAG TTTGATTTTT	780

TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTGA ACATCTGTTG CTGCATGGAC GCTATTCATA GCTGTTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGGAAT TTCTCCTTT ACTTCTTTAG	960
AGTAATATAT CTATCTTAAA GAAAACCTTAT AACAAAAACA CCTGGTCTAG CCAGATGTTG	1020
AAAAGAGAGT GAAACATTG ATGATGTAAA GGTAAAGTCG TACCTGTCTA GAATAATAAT	1080
AGTTTCCTCC ATTTACATAG AGTTCAGCAC CGTGAAAAAT GGAAATGGGG TGAATATAAC	1140
TATAAGTCTT TCCAGTCCTA TTACCAAGCA AGGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
TGGCTAGAGC CAGGGTATTT TCCTTGCCAT TTGGGCGAT AAAATCGATA TAGGCAGGTC	1260
CAAAATTATA GGCTTGAACA GCTGTCCAGA TATCTACCCC CTTCTTCTGC GCCAGATAGA	1320
GATTGCCTGT CAGAGTTGA ATGCCTTGCC GAATGCTAGA GGCATTATCA TTGATGGTGT	1380
TGGTGAACC ACTTGCAGAC TCACTAGACT GCATAACATC GCCTTCTTT CTTTGTGTT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTGTCTTGT TCACTCAATA	1500
TTTCTCGCAC CATGGGTTGA TAGGTCAATG CTTGTTTGAC ATCTTGATGA ACGCGGTAAG	1560
CTTTATAGCC AGCAAAAAGG AAGACTGCTA GTACAAGCAC TCTTCGAATT CGTTTAAACA	1620
TTATTTACTT TGGATATCCT CGATATTTTT GATTAAGATA GAGTAGGTTT CATTTTCGTT	1680
TTGGATAAAC TCAACAGACT CGGCGTCTTG ATAGACGTTA TTGGGAACGA TGAGCTCAAT	1740
TCCATTTGAT AAGGAGAGTT TTTGGTTTTT AAATTTCTTT AATTGGCGAC TGGCATCAAT	1800
TTTCATCAAT TGAACAGGTT CTGGTACGGC TTCTTTGACT TGGTCAATAA AGCTCAAACG	1860
AGCCGTCAGA TTGTTGTCAA AAAGGTCATT AGCCAATTTC TCAGGTGACA ATTCATTGCT	1920
TTCTTCTAGG TTGTTGAAAA TAGCTGATTT GACCTTGGAT TGAAATTGAA AATCATCTGT	1980
GTAAAAAGAT TTAGCAATTC TCTGGGCTGT TTTTCCAGT TCCTTGATAG ATTTTTTAGG	2040
AGAAATCTTA GGAGCGACAG CAAGAAGATT ATCTGAAAAA TAGTTCAAAA AAGTCCCGTT	2100
GTACTTGATT CGTTTTTCAA TCAGGTGATA CTTGCTACTC TGAAGATTGA CCACCAAGGC	2160
CTCATCAGCT CCTGTTCCAA ATCCAGGCAG GTTATTCTGA GTTAGCTTGA TTGATTATC	2220
AACTTCTCCT CCGAGGTGGG TCAAGGTCTC CCGCAGGGCA ATTCGCAAGA AAGCGAAATG	2280
TTCTACACCT TCTTTAGAAA ATTGCACAAA AATCAAGTCA TTGGTCTTGA GATTTTCAGA	2340
AATGCTAAAC TCCTCTTTCC AGAGATTAGC CAGCGTTACT GATGTCTCCA ACAAATCGTC	2400
TGTAATATGA TTGAAGAAGG GATTTTCTTC TTCGAAAATC CCAGTCTTGG CTTTCATCTGA	2460
ATACACATGT TCAATTTTTT TACGCAGGTA TTCTTCGATT TTTGGAGTAA TATTGAGAAA	2520

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CTTATCTGCT AAGAACAGTT CGGTATCATC CGGACTGAAC TGGTGAATAA TGGCTTTCTT	2580
AATATAAATG TCCATAAAAG TTTTAGTCCT CGTATAATGG GAAGGCATCT GTCAATTCTT	2640
TGACTGCACT TCTCACTTCT TCTAATACAG CCTCATTTTC TGAATTCCTA AGGGTTTAA	2700
TGATGAGTTC AGCCACTTTG CGACTTTCTT CTTACACAAA TCCACGTGCA GTAATGGCTG	2760
CTGCTCCGAT ACGAATCCCA CTTGTCTTGA ATGGTGACAA GCTTTCGTAA GGGATTGAGT	2820
TTTATTTTAA GGTAAATATG ACTTCATCCA ACAAGTTTTC AGCAACTTTG CCGTTTCTA	2880
CAACTTTAGT CACATCAACA AGGAAGAGAT GGTTCACGT TCCACCTGAA ATAATACGGA	2940
AATCAGGGTC TTGCAAGAAG ACATCTGCCA TAGCCTTGCT GTTCTTAATT ACATTGGCAG	3000
CATATTCCTT GAAGGTGGA TCCAAACTT CTTTGAAGGA AACTGCCTTA GCCGCCACAA	3060
CATGCTCTAA AGGACCGCCC TGAATACCTG GGAAATAGC TGAATTGATT TTTTACGAA	3120
GTCTCTCGTC ATTGGTCAAA ATCAAACCAC CACGAGGTCC ACGAAGGGTT TTGTGGGTCG	3180
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CAGCGATATG GGCCATGTCC ACCATGAGCT TCGCACCGAC AGCATCTGCG ATTTACGGA	3300
ATTTGAAAA ATCGATAATT TGAGAATAGG CTGAAGCACC AGCTACAATC AGTTTGGTT	3360
TACTTCTTG GGCTTGTTC AAGATAGCAT CAAAGTCTAA GAGTTCCGTT TTAGGATCAA	3420
CACTATAAGA AACAAAGTTG TAGGTTTGAC CAGAGAAGCT AACAGGAGCC CCATGAGTCA	3480
AATGACCACC TGATGCCAAA TCCATTCCCA TAACCGTATC ACCTGGCTCA ATCAAGGACA	3540
TGTAAGCCGC ACAGTTAGCT TGGCTTCCTG AATGTGGTTG AACATTGGCA AATTAGCAC	3600
CGAAATTTTC TTTTGC GCGT TCAATAGCAA GAGTCTCTAC AACGTCTACT ACATCAGTTC	3660
CACCATAATA ACGGCGTCCT GGGTAACCCT CGGCATATTT ATTTGTCAAG ATAGACCCTT	3720
GAGCTGCCAT AACAGCCTTG GAAACTACGT TTTCCGAAGC AATTAACTCG ATATTATTTT	3780
GTGGCGTTC TTCTTCTTTG GCAATAGCAT TCCAGAGATC AGCATCATAT GCTTTAAAT	3840
CATCTTTGTC AAAAATCATA GGTCTTCTCC TTTATTGTGT GACTAGTCCA TTAGTTTGAT	3900
TTTACAATAA GAAAATCAAA CTAACAGATG CGAATAAACC GTTCTGTCAT TTTATCACA	3960
GTATAGCCAA CTTTTTCATA AAATGCATGA GCACCCAGAC GATGATTGGC AGAATTTAAG	4020
CGGATAAACC CATAACCACA TCTTTTGTCT TCTTCTTCCA ACCCTTGTAG TAAACTTTTA	4080
CCAATACCTT GACCTTGCGC TTGAGGTGAA ACTGCTAAAG CTAAGATATT AAATCCTGCT	4140
TTGGAATAGA GTGATTGTA AACTTCAGCG TGGACATATC CAAGTAAGAC ATGATTAGCT	4200
GCATCCTCAT AGCCAAGTAG GAAATGATGG GAATCCTGAG ACAGTCTAGC TAGTTGGCTA	4260
GCCGTTTCCT CTGGAATAA AGTATAACCC AAAGCCTCTT GGTGATGTC ACATATAGCT	4320

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TTCACATCAG TTTCTCTTAA ATCTCTTAGC ATCTCATTC	TCCTCAAAAG AAATCTTTGG	4380
CAACCGAGCA AGAATATCTT CTCGCTTAAT GGCCCCTTGA	CGTAAGATTT TCACCTTGTC	4440
TCCCGACAAA TTCAAATAG TTGAATCCTG TCCAGTTAGA	AAAGCATCGT CTTCCAGACC	4500
CAGAACCTCT TGGTCAAAAT CCTCTAGAAT TTGATTAAAG	GTCACCTCCAC TCGCCTGACC	4560
TGAGATATTG GCAGACGGCC CAATCAAGGG ACCTGTCTCT	CGAATCAAAT CAAGGGTAAT	4620
GGGATGACTA GGCATCCGAA ATCCAACAGT TGCAAGGCCA	GAATTGACCC AATAGGGAAC	4680
TCGGTCATTA GCTTCGAGAA TAATGGTCAA GGGACCTGGT	AAAAAGATCT CTACAAGTTT	4740
TTGAAGATAA GTTGCTGAT TCTTTGAAAA GTACAAGATG	TCCTCTAAAG AGGCAACATT	4800
GAGATTGAGC GCCTTGCTCT TACGTGACG TTTAAGCTGG	TAAACATGGT CAACTGCTTT	4860
TTCTGTAGC GCCTTAGCAA AGAGACCGTA AACTGTCTCT	GTAGGCAAAA CGACAGCTCC	4920
ACCATTTTCC AACTCTTGTC TAATCCTGTC CATCATCAAC	GACAACCATC CTATCTTGAC	4980
CAAATTGGTC CTTGAGTGT CGTACTCGCT TTTAGGAAG	ATGTTTCCTA AAAAGTTCAG	5040
GAACACTTTG ACCTTGCTTG TATCCAATTT CAAGGTAAAT	CTTACCACCA TCTTTGAGAT	5100
AGTCTTTTGC ATCTTCCGA ATTCTACGGT AAATAGCTAG	GCCATCCTCA TCTGCAAAGA	5160
GAGCTAGATG AGGCTCCGAA TACAAGACAT TCAAGCCTAC	CTCTGACTCA TCTTCACGAG	5220
AGATATAGGG TGGATTGGAA ACAATTATAT CATATTTTTC	AGAAATTCT GTAAAACAGT	5280
CAGATTTTTT TAAAAATATT TGAAGATTTT GATTTTTAGC	ATTTTCGCTA GCTACATCTA	5340
AAGCATCTTG GGAAATATCT GCTGCCGTCA CTGACCAATC	TGGTCTGTTT TTTGCTAGAG	5400
CGAGAGCAAT AGCTCCACTA CCTGTTCCGA TATCTAGGAC	CATAAGATTT TTCACAGGAT	5460
TTTCAGCCAG GATAAGCTCC ACCAACTCCT CTGTTTCTGG	ACGAGGAATC AAAACCCGTT	5520
CATCCACCTT TAAATGCATT CCATAAAAAT CTGCCTGTCC	AATGATGTAC TGAGCTGGCT	5580
TGTGAGCTGC TAGTTGCTGG TAAATATCTT CTACAAATTG	TTTTTCTTCC TCTGTTGTCA	5640
CCTCCTGCTG GAGGGCAAAA ATAAAGTCTG TAAAGATAG	ATTTTTCAGA CTACGATAGA	5700
CAAAGAGAG GCTTTCCGCT TCCTCTCCTT GTCTTATCAA	CTCTTCTTCA AAATTTGAAA	5760
ATAATTGAGC TAATTTCAAT ATTTGTTTAA TTCTTCTAGT	TTTTGTGTTT GGTCAATAAG	5820
CACCAAGGCA TCCACAACCT CGTCCAATTT ACCAGACAAA	ATCGTATCTA GTTTTGGAG	5880
GGTCAAGCCG ATACGGTGGT CTGTGACACG GTTTGTGGG	AAGTTATAAG TTCGGATCCG	5940
TTCTGAACGG TCACCAAGTAC CGATTGTGCA CTTACGCTCA	GCGTCCTGCT CATCTTGAGC	6000
AATCTGAGCA AAGTGGTCAG CAACACGGGC ACGGATGATT	TTCATGSCCT TCTCACGGTT	6060

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CTTCTGCTGG GTACGTTCTT CCTGCATCTC AACCTTGATA TTGGTTGGCA AGTGAACGAT	6120
ACGAACGGCA GTCGCAACCT TATTGACGTT CTGTCCACCA GCACCAGAGG CGTGATAGAT	6180
GTCGACACGA AGGTCTTTTG GATCAATGTC GTATTCAACC TCTTCAACTT CTGGCATAAC	6240
AAGAACTGTC GCTGTCGAAG TATGAACACG GCCTTGGCTT TCTGTCACAG GAACACGTTG	6300
CACACGGTGG GCACCTGATT CATACTTAAG CTTAGAGTAT ACAGACTGAC CTGAAACCAT	6360
AGCAACCACT TCTTTAAAAC CACCGACACC ATTCATAGAG GCTTCCATGA CTTCAAAGCG	6420
CCAACCTTGG GCTTCCGCAT ACTTTTGGTA CATAGTTAGC AAATCTCCAG CGAAAAGTGC	6480
CGCTTCGTCT CCACCAGCTG CTCCACGGAT TTCAAGGATG ATATTCTTGT CATCGTTTGG	6540
ATCCTTTGGA AGGAGCAAAA TTTTCAGTTT TTCTTCATAT TCTTCTTTT CAGCCTTGGC	6600
ATCTTTGAGT TCTTGCTTGG CCAATTCCTC CAAGTCCGCA TCTCCGCTG ATTCCTTAAT	6660
CATCTCTTCG GCATCGACGA TATTTTGAAG GACTTGTTTA TACTCACGGT AGGCTATTAC	6720
GGTGTACGA TTGGAAGCTT CTTCCTTTGA AAGCTCCATA AAACGCTTGG TGTCTGAAAC	6780
GACATCAGGG TCACTCAGCA ATTCCTCTAA TTCTTCATAA CGGTCTTCTA CAACTGTAG	6840
TTGATCATAG ATGTTCAATT TTTCTCCTTA TTTCTCAATT GTTAAATCAT AGATTGCTAC	6900
TACTTCATTC TCGGATATTT CCCCACTTTC TTAAATCCA TAACTGAGGT AACAAAATCT	6960
TGCCTGTTCA TTTTCTGGTT CATAAGACAA CCAAAGTTTA TTGCTTAAAC CTGCTGGCGC	7020
TGTTCGAACA TAGCTAGTA CTTTATCCAT AATTGGTTTA AAATATCCTT GATTTTGAAA	7080
ATTCTTATCA ATCATAAAAC GAAATAGTAA ATAATTCCA TACTAATTC CGATCTTTT	7140
ATCATAAGCT ATCATCACAA AACCTATAAT TGCATCATTA TCATAAACTG CCAATGGAGC	7200
TACAAAATCT CCATTTT TAGTACGTA TGCTTCAGCT AAATAATTG CGTTGGTTGC	7260
AATGAATTGT TTTTGATATT CCTTGACATC CAAATTAAA ACATCAAAAT AATTTCCAT	7320
TGTAACATCT CTTAGTTCAA TTGTCATAGT TTTGCTCCTT GTTAGAGGT ATCATTGGCG	7380
CAAAATAATG TTTACGGCAA ACTGAGATAT AGGTTTCGTT ACCACCAATC TGGATCTGTT	7440
CTCCATCGTA AACGGGCAGT CCATCCTGTG TTCGCAACAC CATGGTCGCC TTTTCTTGC	7500
AATACTGACA GATGGTCTTG ATTTTCGTCAA TCTTGTCTGC TAAAAGCAAG AGATATTTGG	7560
AACCTTCGAA CAATTCAATT CGAAAGTCAT TTTTCAAGCC AAAAGCCATG ACGGGTATGT	7620
CTAACTCGTC CACAACACGA GCTAGGTCGT AAACATGGTG GCGTTTGAGA AACTGGGCTT	7680
CATCGACCAA AACACAGTAA GGTTTTTCTG GTAGGTCTCG GATATAGCCA AAGATATCCG	7740
TTGTTTCTCT AATCGCAAG GCAGGGCGTT TCATGCCAAT TCGACTCGAC ACATAGCCAA	7800
CGCCGTCACG CGTATCCAGA GCCGAGGTCA TAATCACAAC ACCTTTTCCT TGCTCCTCGT	7860

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AGTTATAGGC CACTTTGAGA ATCTCAATCG TTTTACCAGA GTTCATGGTC CCATAACGAT	7920
AGTACAAC TGCCATGTTT CTTGCTTCAC GTCCATTCTT AAATTTTTCG TACATTCTAG	7980
TATATCATAA TTTTCTTAAG CTTTAAACGG CAAAATGTGG TAAAATAGAA GAAATCAAAA	8040
ACTAGTGGAG GAAGCTATTA TGCCATTGTG ACGCATCGAT TTATTTGAAG GACGCACGCT	8100
CGAGCAAAAG AAAGCTCTTG CTAAGGAAGT AACGGAAGCA GTTGTCCGCA ACACTGGAGC	8160
CCCTCAATCT GCTGTCCATG TCATCATCAA CGACATGCCA GAAGGAACTT ACTTCCCACA	8220
AGGGGAAATG CGTACTAAAT AAGCTAGCTT AAGCAGAATT GCTTAGGCTT TTTCAATCTC	8280
CAAGTAGCAT TCATTGAAGA AATATCCTAA ATTTGTTACA ATTTGAAAAG AAAGTTGGAG	8340
AAATTTCCAAG AAAAGAGCTA TTAATTAAAG GAAACATTAT GATTACACGT GAATTTGATA	8400
CCATCGTGCG TATCTCTACT CCACTAGGTG AAGGGGCTAT TGGTATTGTC CGCCTGAGCG	8460
GAACAGACAG TTTTGTCTAT GCGCAAAAGA TTTTAAAGG AAAAGACTTG AACAAGGTTG	8520
CCAGCCACAC TCTCAACTAC GGTCACTTA TTGATCCTCT GACTGGTAAA GTCATGGACG	8580
AGGTTATGGT TGGGGCTATG AAGTCTCCAA AGACCTTCAC TCGTGAGGAT ATTATCGAGA	8640
TTAACACCCA CGGTGGGATT GCGGTGACCA ATGAAATCTT CCAGCTAGCT ATTCGTGAAG	8700
GGGCTCGGTT GGCAGAACCT GGTGAATTTA CCAAACGTGC TTTTTTAAAC GGTCGCGTAG	8760
ACTTGACACA GGCAGAGGCT GTGATGGATA TCATCCGTGC CAAGACTGAC AAGGCCATGA	8820
ACATTGCGGT CAAACAATTA GACGGCTCCC TTTCTGACCT CATTAAACAT ACCCGTCAAG	8880
AAATCTCAA TACACTTGCC CAAGTTGAGG TCAATATCGA CTATCCTGAG TATGACGATG	8940
TTGAGGAAGC CACTACTGCT GTTGTCCGAG AGAAGACAAT GGAGTTTGAG CAATTACTAA	9000
CCAAACTCCT TAGGACAGCA CGTCGTGGTA AAATCCTTCG TGAAGGAATT TCAACGGCTA	9060
TCATTGGACG TCCCAACGTT GGGAAATCAA GCCTTCTCAA CAACCTCTTG CGTGAGGACA	9120
AGGCTATCGT AACAGATATC GCTGGGACAA CACGAGATGT CATCGAAGAG TACGTCAACA	9180
TCAATGGTGT ACCTCTCAAA TTGATTGATA CAGCCGGTAT TCGTGAAACG GATGATATCG	9240
TTGAACAAAT TGGAGTTGAG CGTTCGAAA AAGCTCTTAA GGAAGCTGAC CTAGTTCTGC	9300
TAGTACTAAA CGCTAGTGAA CCACTAACCG CCAAGATCG CCAACTCCTA GAAATCAGTC	9360
AGGAGACTAA TCGCATTATT CTTCTTAACA AAAGTACCT GCCTGAAACG ATTGAAACTT	9420
CGGAAC TACC TGAAGATGTC ATCCGCATTT CAGTTCTTAA AAATCAAAAC ATCGATAAAA	9480
TCGAAGAGAG AATCAACAAC CTCTTCTTG AAAATGCTGG TTTGGTTGAG CAAGATGCTA	9540
CCTACTTGTC AAACGCCCGT CACATTCCTT TGATTGAGAA GGCCGTTGAA AGCCTACAAG	9600

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CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTAATTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCCTGT TTAGGAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTAGTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAATTCCT TATCTTGAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTCGCTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTTAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGGAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCACTGAAT TTGTCTATTC GAGGATGGAT AACTATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGCGT TAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTACTCGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTCACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

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ACTTTTCAGA TATTTTTTG ACTATCTAAA TCTATCATT GAAAAGCTTA GAGCGCCAAA	660
GGATTGAGC GTTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTCG ATTGAAGATG	720
TAATTATCT ACTAACTAAC TAACTTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAATT AGGAATAATA AAGGCAATAG TTTTGTMTT TTCATGTAAA AAACCTCACT	840
TTTGTCTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTTGTA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TTGTTAGTCT CTCAATTATT	960
TGCAAAATTA GCAGATATTT TCTTTAGAGT AACAATCATT GCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTC	1080
GAGCTTTTA GTTCCGTGG TTAATAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTGGA AAGACTATAT TATGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGGTGACCT ATCTATTGT TGTGCAATT TCCATACTAG ATGGTTTGC	1260
AGCACCGGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTTGGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTTCA ATGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTGTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTGT ATATCATTTT	1440
TAGCTTCTG ATGTTATTTT TCCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTTATGGA AAATTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTGTA ACGGAGTTAT TAAATAAAC GGAAAGTTAC TGGGGATATT CTAATACAGC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATGCTTTT AGGCTATCTG AAAAGTTCCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTCAC CCCAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTTAGCTTA GATCCTGGAT GGTTCCTTTT TTCACCCAAT GGGTGTMTT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAC AAAAAAGAA AGGAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTTGA	1980
TGGAGTCAT TTAACCCAGT ATGGTGTCT TATCTTTT TTTCCAGTT TTTCCAGTT	2040
GAACTAAAA GAGCGGATT CTAAGTATT AGTAACGAAT GACCAACGCC GCTACTGTCG	2100
TTATTCGGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAGAAT TGTAGCTGA TGCCTACTTT CCAAAATTGT TGAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTCTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTG CGATGCCTCA ACCTTGAATT GGTGGAATTC TTTTACAGT TTCACAGCT	2340

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AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTCACA ACTTATGGCA AGC

2393

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4762 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTAA ACTATACGTC ATTTCCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GCGGATTTTG TCCCCGTTGC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGAA AACTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGACTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTTGTG TATTTTAAAT AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTTGCCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGATTTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGCGGGCTGA	900
CAAGGTTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTACATAGC GCTTTCACA GGGAATTAAG ATTTACGAAA TTCAAAATAT	1020
CGTAGAACAT GAACTCCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAA AGCGACGGAT ATCAACTTTA GTATTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAAGACA GTGATGCTTT	1200
TAACACTCAG CGTGATTGTA CAGCAGGGAT TGTGGGAAA TCAATCGGAC TGCAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGATATC CACTATCAG ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTTAAGGGTA TGTGGAAAA	1380

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TGGTTTTAAG ATTGGAATG CAGAGGTAGA GAGTCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTCTT CAAATCATTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAACTCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGCTCTAT GATAAGATTG TTGATTTGAC AGGTCTCTTC AAGGTGCCTA TGGGCTGCCG	1980
TTCTTTCCCT CAAGGGTGA AGGATGAAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAAGAGG CGACACCAGC GAATGCTCCT ATCTTTATC AGTACGGTGC	2220
TTTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTCTT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAAT CACGCTAGAC ATCATTCACG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTT TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGPTCGTA AAAATCCAAC	2580
ACCGTTTGAA AAATGGACT TTGAGAAAGT CTATCCGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCATAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTTA	3120

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AACAAGAACA	AGAAAAATA	AAAGTGAGAG	CCAGCTCTCG	CTTTTCTCAT	AGTGGGAGGT	3180
AAGGATGGAA	TTACGCAGAC	CAAGATTAGC	GGATAAGAAA	GCTGTTTGTAG	ATATGATGAC	3240
AGAGTTTGAA	AAATTTCACT	CGCCTCACGA	CGGCGGTTTC	TGGGATACAG	AGAACTTTGT	3300
GTATGAAGAC	TGGTTAGAAA	GCAATCAGGA	ACAGGAAATG	GGGATTAAATC	TGCCTGAAGG	3360
ATGGGTTTCT	GCAATTCAGT	TAGTGGCTTT	TTCTGAGAAA	GGTCAAGCAG	TTGGATTCTT	3420
TAATCTCCGG	TTGCGCCTCA	GTAACCTTCT	ACTAGAAGAA	GGTGGCCACA	TTGGCTACTC	3480
CATTCTGTTCA	TCTGAAAGAG	GCAAGGGTTA	TGCAAAAGAG	ACTCTCCGTC	AGGGCTTGCA	3540
AGTTGCTAAG	GAAAAGAACA	TCAAGAAAGC	TCTGGTGACC	TGTAGTGTGA	ATAATCCTGC	3600
TAGCAGAGCA	GTCATTCTAG	CAAATGGTGG	AATATTTGAG	GATGCTCGCA	ATGGAGTCGA	3660
GCGTTATTGG	ATAGAGGTAG	CGAATGAATA	ATCCAAAACC	ACAAGAATGG	AAAAGCGAGG	3720
AACCTTAGTCA	AGGTCGTATC	ATTGACTACA	AGGCCTTTAA	CTTTGTGGAC	GGCGAAGGCG	3780
TGCGCAACTC	TCTCTATGTA	TCAGGCTGTA	TGTTTCACTG	CGAGGGATGT	TATAATGTTG	3840
CGACTTGGTC	TTTTAATGCT	GGCATTCCCT	ATACAGCAGA	ATTAGAAGAG	CAGATTATGG	3900
CAGACCTTGC	CCAACCTTAT	GTTCAAGGCT	TGACTTTGCT	GGGAGGGGAG	CCTTTTCTCA	3960
ATACTGGGAT	TCTCTTGCCA	CTTGTTAAGC	GGATTCGGAA	GGAATTGCCA	GACAAGGACA	4020
TCTGGTCCTG	GACCGGCTAC	ACTTGGGAAG	AAATGATGTT	GGAAACTCCA	GATAAACTGG	4080
AATCTTGTGC	ACTGATTGAC	ATTCTTGTGC	ATGGAAGATA	TGATCGAACT	AAGAGAAATC	4140
TTATGCTCCA	GTTTCGAGGT	TCATCTAACC	AACGAATTAT	CGATGTGCAA	AAATCGCTCA	4200
AAAGTGGGCA	AGTAGTGATT	TGGGACAAGC	TCAATGACCG	AAAAGAAAGC	TATGAACAGG	4260
TGAAGAGAGA	ATGAAGAAAA	AGGACTTAGT	AGACCAACTA	GTCTCAGAGA	TCGAGACGGG	4320
GAAAGTCAGG	ACACTGGGAA	TATACGGTCA	TGGAGCTTCA	GGTAAATCAA	CCTTTGCACA	4380
GGAATTGTAC	CAAGCTTTAG	ATTCTACTAC	AGTAAATTTG	CTAGAGACAG	ATCCTTATAT	4440
CACCTCAGGA	CGCCATCTGG	TAGTACCCAA	GGACGCGCCG	AATCAAAAGG	TGACAGCCAG	4500
TCTGCCAGTG	GCGCATGAAC	TGGAGAGTTT	GCAGAGAGAT	ATCCTTGCTT	GCAGGCGGGT	4560
ATGGATGTCT	TGACAATTGA	AGAACCTTGG	AAGGCTAGTG	AGGTCTTGTC	TGGAGCCAAA	4620
CCAATTTTGA	TTGTCGAAGG	GATGTCTGTT	GGCTTTCTAC	CCAAGGAACT	CTTTGAAAAA	4680
ACCATCTGTT	TCTACACGGA	TGAGGAGACC	GAATTAAAGC	GACGCCTTGC	TAGAGATACG	4740
ACTGTGAGAA	ATCGCGATGC	GG				4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CCTGCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCAATT TTTCTATTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTTCG ATGTCAACCA GTCCATTTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGA CGTTTGATG ACCTGTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGA AACTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAT	720
GGAAGTACAT TCAGCGGATT TTGAGAACT GCGGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTTGA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCCACA AGTTTGTAAA GAAATCGGTA CTGACTACGT TGTTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGSTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG CTTCAACAAGA CGATGCACAA AAAATGTGTA AAGTTGTTTCG TGACGTTGTA	1560
GCTGCTGACT TTGGTCAAGA AGTCGCAGAC AAAGTTCGTG TTCAATACGG TGGTTCGTGT	1620
AAACCTGAAA ATGTTGCTTC ATACATGGCT TGCCCAGACG TTGACGGTGC CCTGTAGGT	1680
GGTGCCTCAC TTGAAGCTGA AAGCTTCTTG GCTTTGCTTG ACTTTGTAAA ATAATCAGTA	1740
AGTAGCAAAA GCTAGGTGGA ACAGCATTCA GATGCTCTGT ACATTTTFTA TAGGAGAGAA	1800
AGATTGAAAA CAAAAATTGG ATTAGCAAGT ATCTGTTTAC TAGGCTTGGC AACTAGTCAT	1860
GTCGCTGCAA ATGAAACTGA AGTAGCAAAA ACTTCGCAGG ATACAACGAC AGCTTCAAGT	1920
AGTTCAGAGC AAAATCAGTC TTCTAATAAA ACGCAAACGA GCGCAGAAGT ACAGACTAAT	1980
GCTGCTGCCC ACTGGGATGG GGATTATTAT GTAAAGGATG ATGGTTCTAA AGCTCAAAGT	2040
GAATGGATTT TTGACAACCTA CTATAAGGCT TGGTTTATA TTAATTCAGA TGSTCGTTAC	2100
TCGCAGAATG AATGGCATGG AAATTACTAC CTGAAATCAG GTGGATATAT GGCCCCAAAC	2160
GAGTGGATCT ATGACAGTAA TTACAAGAGT TGGTTTATC TCAAGTCAGA TGGGGCTTAT	2220
GCTCATCAAG AATGGCAATT GATTGGAAAT AAGTGGTACT ACTTCAAGAA GTGGGGTTAC	2280
ATGGCTAAAA GCCAATGGCA AGGAAGTTAT TTCTTGAATG GTCAAGGAGC TATGATGCAA	2340
AATGAATGGC TCTATGATCC AGCCTATTCT GCTTATTTT ATCTAAAATC CGATGGAACT	2400
TATGCTAACC AAGAGTGGCA AAAAGTGGGC GGCAAATGGT ACTATTTCAA GAAGTGGGGC	2460
TATATGGCTC GGAATGAGTG GCAAGGCAAC TACTATTGTA CTGGAAGTGG TGCCATGGCG	2520
ACTGACGAAG TGATTATGGA TGGTACTCGC TATATCTTTG CGGCCTCTGG TGAGCTCAAA	2580
GAAAAAAAAG ATTTGAATGT CGGCTGGGTT CACAGAGATG GTAAGCGCTA TTTCTTTAAT	2640
AATAGAGAAG AACAAGTGGG AACCGAACAT GCTAAGAAAG TCATTGATAT TAGTGAGCAC	2700
AATGGTCGTA TCAATGATTG GAAAAAGGTT ATTGATGAGA ACGAAGTGGG TGGTGTCTAT	2760
GTTCGTCTAG GTTATAGCGG TAAAGAAGAC AAGGAATTGG CGCATAACAT TAAGGAGTTA	2820
AACCGTCTGG GAATTCCTTA TGGTGTCTAT CTCTATACCT ATGCTGAAAA TGAGACCGAT	2880
GCTGAGAGTG ACGCTAAACA GACCATTGAA CTTATAAAGA AATACAATAT GAACCTGTCT	2940
TACCCTATCT ATTATGATGT TGAGAATTGG GAATATGTAA ATAAGAGCAA GAGAGCTCCA	3000
AGTGATACAG GCACTTGGGT TAAATCATC AACAAGTACA TGGACACGAT GAAGCAGGCG	3060
GGTTATCAAA ATGTGTATGT CTATAGCTAT CGTAGTTTAT TACAGACGCG TTTAAAAACAC	3120
CCAGATATTT TAAACATGT AAAGTGGTA GCGGCCTATA CGAATGCTTT AGAATGGGAA	3180
AACCCCTCATT ATTCAGGAAA AAAAGGTTGG CAATATACCT CTTCTGAATA CATGAAAGGA	3240
ATCCAAGGGC GCGTAGATGT CAGCGTTTGG TATTAAGCGA TGATTGAAA GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTC TTTGTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATT CTTCAAACCA CATCAGCTTG GTCAGTTCTA CCTGCGACCT	3540
CAAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCATT	3600
GACTATAAGC ATCCAACCCT CTTTTGTCT TCTAAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10690 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTTCGA	120
CAATGCAGAC AGCCTGATTT TGAATATCTA AAATGACATC GAAGGTCCTT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACTTGAT ACCCAACTGA	480
TTCATTTTTT GTATGAAAGA AGTATTGAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTCCTCAT AGTCGCAAAA ACAAGGAAG TCAATCATT CATTCCAACT	660
ACAATCTTTG AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG TAACGACATG TGCTTCAGCC TGAAATTTCAT CCAAACACGC CAGTAAACGC	900
CTAGTTCTCTC TATAGCCAAA CAAGGGATGC CCTTCGTCAA AAAACTCTTT AGTCCCCACT	960
AAACAATTGG CTCTGTATT CGTTAATTCA GTAAAACGAT ACCAACTTC CTTACCTAAG	1020
TAAAAGGAGC AAATAGTATC AAGATAATCT TTCACAAATT CCTGACAACT TTGTAATAGT	1080
ATATTTTGAT TGAGCTCTCT CAATAAGTAT TCCCCACGAA TCATGCCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTC AAGAATTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTCACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTTCT GGAATCCTA ATAATTGAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTTCTGTA ATCTCTTGAA TATCCATCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACCTGAGG	1380
TGCACTCTCA TTCATTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAATTTT	1440
TAACTCTTCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
TCCCGTCTCT TCCATAACTT CTCTAGTCAG CGTTTCCGTC AGTCCTTCAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACCGATGTTG ATAAGGGCCT CTCGTTTTT CAATGCAAAG	1620
TAACTTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTTGA TTTCCATCCA	1680
ACTCCTCCTA CTTCAAAGAC CAGCCACCAT CTATTGTCAA GATTTGTCCT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCTCTGGC TCAATCCAGC	1800
GCTTGATTGG GGTTCACATA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCCGCAG	1860
CGGTACATAGC TGTCTTGACT GCTCCTGGAG CGATACCAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACATG TTGGTGAAGC CAGCCAAGGC ATGCTTGGAT GAAGTATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCT	2040
TTTTATTTTC CAGCATTTGT GTCAAATAAT ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAAA AATCTCTTGA ATGTCCTGCG CCGTTTGTTC CAACAGTGGT TTGTAATCAT	2160
CCAAAACCTC AGCAGTATTA CAAAAACAT CCACCTGAGG GCACCACTCA AAAATAGGTT	2220
CCAAGTCCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGGTC AACTCCATAA ACTTGATAGC CTTCTCTAA AAAGAGGCGA GCTTGAGCCA	2340
ATCCGATCCC TGAACACTCT CTTGTAATGA GTACACGTTT AGTCATGCAC TTCTACCCAA	2400
TCCGTTGCCA AAACATCACA AACTGTCGGG CTCACATGG AAAAACTTC TCCTTCGCCA	2460
GAAACGTTGA TTAGGAAATA AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGGTA	2520
TCAAAGAGTT GGACATAGTT TTCCGCACCT CCCCAACCAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAACC CAGGCAGGAT CTCTTCAAAT GTCATGTTTT TCTCCTTAA TTCTACATTC	2640

723

TTCATTTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCAAAC	2700
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TTGTTAAGCT AAAGTTTGCC GCTCGGCTAA CTCTCTCAA GTGCTTAGGA TTTGTTGTAC	2820
CTACGACTGC CTGCATTTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAAATTTCT	2940
CATTTCGAAC AAAATTCCCT TTAAATAACC CGAATTGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATTGGCAA TATTCAAAAA TGCTGCCATC TCGCATAGCT GCTTGACTAT	3060
CTTCCATATT AACATGAAAA GCTGATTCAA ATCCTGGAGT AAAAGCCGCA CTCAATTGTA	3120
GCTGATTAAC AGCTAACGGC TGCTTGACAT CTTTTTTAAG CAACTCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAAA TCTCGAAGTT TACCTTGTTT ATAAAGGAGA TTAAAGGCTT	3240
CTGCTACTTG GTCAGATTCC ATCAAAGCAT CTGGTCGATG AAGGAGCAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTGC AAAATACCGT CTACTGATTT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAAATTCT TCAATGCGAA TGCCACATTT GGACTGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATTT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGCTGTT TCTACAAGCT	3540
CTTCAACTTC TTTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCTTTGTC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCTC TTTAATTTCT	3660
AACATTTCTT CCTTCATTAT AACAAAAAAC CGCTTTGCAA CGACTTTTGT ACTATACTTC	3720
ACTCCATTTT ATCTTCTTAA ACCCACGGAA CAAGACAAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTTGTA GGAACACATT TGAAATTTCC ATCCACTCAT AATAACGGAG	3840
CAGAGAACCC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCCAGGG	3960
AGCCGGAATA TAAAGGCTC CTCTTGTAT GAAGCTTGCC ATTCCTACAT ATCCTAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAGTGCCA ATTTTCATTT TAGGAGAATC	4080
TTGGACTAAA CTCTTCGTA AAATGTGGC CACAAGTCCA AATCCAATCA GAAAAATAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAATTGAC TGTTAAGAGA GGACCTTTAG AAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GGCGTCAAAA GGGACTCTTT	4260
GATAGAAGTG CGAGGTGCTC CCTTGAGAAT CTCTTTCATT ATTTTCTTAG GATTCTTACC	4320
TAGATAATCC TCTGCACTCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

724

ATAGATCTGC TCTCTGAGAT AGTCTTCATC ATAGAGAAAT CCAGCAAGAT TAAAACTTTC	4440
CCACAACCTCC TCAAAATACT TTTGATTCTC CTCAGAAAAC TCATGTAGCA AAGCGCTTGT	4500
TTCTTCGTAA TACTTCATTT TCTTCATGGT TTAACCCCA TTCTTAATCC CTCTACTTT	4560
TTGACTCAAA TCGTCCCATT GTTGCCAAAA GACTGAGACA CGCTCTTCTC CTCTTTTCAT	4620
TAATGAAAAA TACTTCCGAT CTGGACCATC TGGCGACGGG CGCATGTGCG CTCTTATCCA	4680
TTGATTTTTT TCTAACTTTT GCAACAAAGG ATAAATAGTT CCTGGAACGA TAGTATCAAA	4740
TCCAGCCTCT CGCAAAGTCT GAACCAACTC ATAACCATAC CGCTCTTTT GACCAATCAT	4800
ATCCAAGACA CAACCTTCAA GAACACCTTT TAATAGCTGA GTTCTTTTCA TCACCTCTCC	4860
CTTCTAATCT ATTTTGTAAT ACCTACTAGT GACTTCACCT ATAGTATATC ACTTCTACAC	4920
TAGTTTGTA AGCATAATAG TTAATACTCT TCGAAAATCT CTTCAAACCA CGTCAGCGTC	4980
GCCCTACCGT ATGTATGGTT ACTGACTTCG TCAGTTTCAT CTACAACCTC AAAACATGT	5040
TTTGAGCTGA CTTGTCAGT TTCATCTACA ACCTCAAAAC AGTGTMTTGA GCTGACTTCG	5100
TCAGTTTCAT CTACAACCTC AAAACAGTGT TTTGAGCTGA CTTGTCAGT TTCATCTACA	5160
ACCTCAAAAA CATGTTTGA GCTGACTTCG TCAGTTTCGT CTACAACCTC AAAACAGTGT	5220
TTTGAGCAAC CTGCGGTAG CTTCCTAGTT TGCTCTTTGA TTTTCATTGA GTATAAATAA	5280
AAAAACAGAA CTAGCCTGAA CTAGTCCTGT CTACTTTTAC CCAATCACAC TTCCATTGG	5340
TACAGCTGGA TCAACTGTGA GAAGGGTTAA TTTGCCATCA TGTTCAGCTG AGAGAATCAT	5400
ACCCTGGCTG ACATATTTTT TCATCATTTT ACGTGGTTTG AGGTTAGCAA CGATTGAAAC	5460
TTTCTTGCCG ACCAATCTT GTTCATTTGG ATAGTATTTT GCAATTCCTG AAAGAATCTG	5520
ACGATCTTCT CCATCACCAG CATCCAAGCG GAATTGAAGC AACTTATCTG AACCTTCTAC	5580
TTTAGACACT TCTTTGACTT CTGCGACACG GATTTCAACC TTGTCAAAGT CTTCAAACCT	5640
GATTTTCATC TTGTTTAGTT TGAGCTCAAC TTCGTCCGGA TTCCATTCTT TTTCGACTGC	5700
TGGTTTATTG CCTTCCATT GTTCCTTGAT ATAGGCGATT TCTTCTTCCA TATTTAGACG	5760
TGGAAAGATA GGTGTTCTT TGGCAACTAC AGTCACATCT GCTGGGAAGT CAGCCAAACT	5820
CAAGTTTCA AGACTAGAAA CTTCTTCCAA ACCAAGTTGA GTCAAAACTG CACGACTAGT	5880
TTCCATCATA AATGGTTCAA TCAAGTGAGC AACTACACGA ATGCTGGCTG CCAAGTGGCT	5940
CATGACACTT GCCAATTGGT CACGAAGAGC TTCATCCTTG GCCAAGACCC ATGGTGCGGT	6000
CTCATCGATG TATTTATTGG TACGAGAGAT CAGAGTCCAG ACTGCTTCAA GCGCACGTGG	6060
ATAGTCAACT GCTTCCATGT GTGTATGGAA GTCTGCGATT GATTGTWCTG CAACCTCAGC	6120
AAGAACATGA TCATATTCAG TCACACCTTC TACATAGGCA GGGATTTGTC CATCAAAGTA	6180

725

CTTATTAATC ATGGAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGACT TAGACATTTT TCCGTCTTTC ATGACAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGGCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCCTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTCTCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGATT TGATGGGACA GGCACTCCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCCAAGCC TGGCTCGATG AAGTTGCGTA GCATTTTCATT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCGA CCAAACGGTC	6780
TTGGTATTTG CTAAGGCGAA GGAAGTATGA TTCTTCAGAA ACCATTCAA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAACTT CTGCCAGCTG	6900
GCTTCTGTA AAGAATCTT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAA GACTTGTCG ACAACTTTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACCGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTCAGATAA AATACATCGT AGCCCATCAG	7200
GCGTTTGTA CGTGCTAGGA CATCATGTC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
TTTCCCAGAT GGATAGTAAA TCGGCGTTGT AATATAAAAA TTTTTCAG ACATAATTTT	7320
TCCTTTCCAG GCAAAAGAAA CCTGTTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAATCCAT ACAAAACAA GATAGACGAG TGTCCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTCGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAACACTAG CCGAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTTCTA TTAACCTTG CAGTAACAAA CTGCTAAG CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCAG	7740
AGTGCGCTCT GTCACGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTTT	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTGTGAAGC CTGCAAGCTC	7920

726

TGTCATTTTT CGTGCCAGTT CTGGACCCAG AGTTGGGGTT AACTGGTAT CATTCACTCG	7980
AAAGACAATA TTAGCTATTT CATCTACATT AAAATTCGCA GCAAGGGAGA TATTGGTAGT	8040
AATAGGCAAG CCACCAAACC CATATATTTT TGATCTTTTA GCCTCCGGAC TAGTATAAAC	8100
CCCAATGACC CGGTAACATA ATCCATTGAC TTCTACAACC TTGTTAATAG CCTCTTGAGG	8160
AGATTCAAAT AACTAATGG ACAATTCCTC ATCTAGCAAA ATGACACTTG CAAACTCTTT	8220
GAAATCTTGC TCTCTCAGAC TACGACCTGC AATAATTTCA TTCTTAACAG CGTCCATGTA	8280
AGTTCTGTTT CCACCTGTCA AATTAGCATT CTCAACCTTT TTATCTTGAT AGGTCAAGAT	8340
GGCATTGCTT GAATTGGTTA CATAGTAACAT ATCCACTCCC TTCAGTTTAG CTGCCTCTTG	8400
GACCAGGAT TCTTGCGGTT TTGGCGGTTT AACAGGAACT TCCTCTTCCT TTCCAGAAAC	8460
CGTAAAAGCT GATTGTTTCT GAGTAAAGA CCCGCTTTTA CTTTTTTTAG GAGAGAAAAA	8520
GACGCTAATA TTTTCTGAG ATTTAGTCAT ATCTTTATTG ACTTGACGAG ATAGGGAATC	8580
ACCCAAAGCC ATAATCACA CAACGTATGA AACACCGATA ATAATCCCAA TCATAGTAAG	8640
CAAGAAGCG ATCTTGAGG CCATGATAGA TGAAAAGGCA AATTTCAGAT TCTGCATCTT	8700
AGTTTTCCTC CTTTCCTAAC TGAGCACTGT CAGACGAAAT GACCCCATCC CGAATGACAA	8760
TCTGACGTTT GGCATAGGCA GCAATCTCAG GCTCATGCGT TACCATGATA ATGGTTTTTC	8820
CTTCTTTATT CAAATCAACC AATAATTGCA TAATTGGTT ACCTGTTTTG GTATCCAAGG	8880
CTCCTGTCGG TTATCCGCT AGGATAATAG AAGGATTGTT TACCAAGGCA CGCGCAATGG	8940
CTACACGTTG CTTTGGACCA CCAGATAATT CTGAAGTAA ATGGTGACTA CGTTCGTCA	9000
ATTCAACCTT GTCTAAATAT TCCTCAGCCA ACTTGCAGC TTTGAAGAC GAAACTCCTG	9060
CGTAAATCAA GGGCAATTCT ACATTTTGCA GAGCATTGAG CTTGATAGA AGAAAGAACT	9120
GCTGAAAGAC AAAACCGATT TGTGGTTAC GGACCTTAGC TAGTTGTTTT TCACCAAGCC	9180
CAGCCACTTC TTGACCTTCA AGATAATATT CTCCACTGGT TGGTGTATCC AACATGCCAA	9240
TCGTATTCAT CAGAGTGGAC TTACCAGACC CAGATGGTCC CATGATGGCT ACAAAATCAC	9300
CCTCATTCAC TTCTAGATTG ATATTTTGA GAACCTGCAG TTCTGGTCA CCATTACGGT	9360
AACTTCTGAA GATATTTTTT AGACTAATTA GTTGCTTCAT CAGCCTTCAC CTCTTTTCCT	9420
TCTTCCAAGG AAGATGTTGG ATTACTGATG ACCTTAGCAC CGTTCGTTAA ACCAGAAGTG	9480
ATTTCTTGAT TTTCTGCGTC AGCATTTCCT AATGAAACCT CAACTTTTTT AGCCTTTTGT	9540
TGTTTCATCCA CAATCCAGAC ATAATTTTGA CTATCATCCA TTAGTAGACT GCTAACAGGA	9600
ACAAGAATAG CCTTAGTTTT GCTTTTAACC TCAATGTTGA CAGAAAAACC TTGTTTCAAA	9660
TCACCAACCT CGCCTGTCAC ATCAATAGTA TAAGGTATT TAGAACCTGT ATTATTCCCG	9720

727

GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA	9840
AGGTTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAACTTGACT CGCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGCT ACTGAGAACA GTTGTTCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCTCCTCCT	10140
ACTGGCGCTG GTAAGTGTGG AGCCGGAGCT GAAGCGGCTT CATTTCTGTC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCCTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC	10500
CCAGCACCCA ATACAACTAC ACTCGCAGCA CCGATTGCTG CATAAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCCCAGGG GGAAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GCTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCTT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

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AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCAATTA GGCACCCAG GCTTTACTACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTCGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACATG GGCTTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTGCGCCAAG GTGTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GGAAAAAGAA GGATTGGCAT AAGGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAAA AGCATATCTA CTCGTTTCAGC	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTTG ATGCTCACTT AATGGTTCTT GCTGACCCAG	1260
AAATGATCAG CCAAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAAGAAGT TACAGATATG TTTATCACTA TCTTTGAAGG CATGGAAGAC AACCCATACA	1380
TGCAAGAACG CGCAGCGGAT WTCCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAAT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCCTTC AGATACAGCT CAATGGACA AAAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCACGTAC ACTTGAAAT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCAGTGAGA AGTGATTATC AACCAACAG ATGAACAAGC GGCAGAAATTT AAAGCAGCTG	1740
GTGAAGCCTA TCGGAAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAA GACGTTGAAG	1860
GTGTTAACAA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCTCACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTTCGA CAATGGATAT CGGTGGAGAT AAGGAACCTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCTTTGG ATTCCGTGCT CTTGCTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTGCTGCGT	2160

CTGTTACCGG TCAATTCCGT ATCATGTTCC CAATGGTTGC GCTCTTGAAA GAATCCCGTG	2220
CAGCGAAAGC AGTCTTTGAT GAAGAAAAAG CAAACCTTCT TGCTGAAGGT GTTGCAGTTG	2280
CGGATAACAT CCAAGTTGGT ATCATGATCG AGATTCTTGC AGCGGCTATG CTTCGAGACC	2340
AATTTGCTAA AGAAGTTGAC TTCTTCTCAA TTGGTACAAA CGACTTGATC CAATATACAA	2400
TGGCAGCAGA CCGTATGAAC GAACAAGTTT CATACTTTA CCAACCATAC AACCCATCAA	2460
TCCTACGCTT GATTAACAAT GTGATCAAAG CAGCTCACGC TGAAGGTAAA TGGGCTGGTA	2520
TGTGTGGTGA GATGGCTGGT GACCAACAAG CTGTTCCACT TCTTGTCGGA ATGGGCTTGG	2580
ATGAGTTCTC TATGTCAGCA ACATCTGTAC TTCGTACACG CAGCTTGATG AAGAACTCG	2640
ACACAGCTAA GATGGAAGAG TACGCAAACC GTGCCCTTAC AGAATGCTCA ACAATGGAAG	2700
AAGTTCTTGA ACTTCAAAAA GAATACGTTA ATTTTGATTA ATCGAAAAGT CCCTGCAACT	2760
CAGTTACAGG GATTTTTTTG ATATTTTAAA AAGAATTTTC AAGAAAATCT TTCTTATAGA	2820
AAGTCCAACC TTGAAAAAGT AGTGGTCAGA ACAAAAAATA CTTAAATGGT TCATAAAATT	2880
CTTGACAAGT TGGATATTTA GGAGTAAACT ATTAACCACT TAAGTAATAG AGAGGAGTTT	2940
CTGCAATTTA GAAATGAATT GCAACTAGAA ATATCAAATA GAAAGAGAGT TTCGATGAAA	3000
ATTAATAAGA AATACCTTGT TGGTTCTGCG GCACCTTGAT TTAAAGTGT TGTTCITACG	3060
AGTTGGGACT GTATCAAGCT AGAACGGTTA AGGAAAATAA TCGTGTTTCC TATATAGATG	3120
GAAAACAAGC GACGCAAAAA ACGGAGAATT TGACTCCTGA TGAGGTTAGC AAGCGTGAAG	3180
GAATCAATGC TGAGCAAATC GTCATCAAGA TAACAGACCA AGGCTATGTC ACTTCACATG	3240
GCGACCACTA TCATTATTAC AATGGTAAGG TTCCTTATGA CGCTATCATC AGTGAAGAAT	3300
TACTCATGAA AGATCCAAAC TATAAGCTAA AAGATGAGGA TATTGTTAAT GAGGTCAAGG	3360
GTGGATATGT TATCAAGGTA GATGGAAAAT ACTATGTTTA CCTTAAGGAT GCTGCCACG	3420
CGGATAACGT CCGTACAAAA GAGGAAATCA ATCGACAAAA ACAAGAGCAT AGTCAACATC	3480
GTGAAGGTGG AACTCCAAGA AACGATGGTG CTGTTGCCTT GGCACGTTTG CAAGGACGCT	3540
ATACTACAGA TGATGGTTAT ATCTTTAATG CTCTGATAT CATAGAGGAT ACTGGTGATG	3600
CTTATATCGT TCCTCATGGA GATCATTACC ATTACATTCC TAAGAATGAG TTATCAGCTA	3660
GCGAGTTGGC TGCTGCAGAA GCCTTCCTAT CTGGTCGAGG AAATCTGTCA AATTCAAGAA	3720
CCTATCGCCG ACAAATAGC GATAACACTT CAAGAACAAA CTGGGTACCT TCTGTAAGCA	3780
ATCCAGGAAC TACAAATACT AACACAAGCA ACAACAGCAA CACTAACAGT CAAGCAAGTC	3840
AAAGTAATGA CATTGATAGT CTCTTGAAAC AGCTCTACAA ACTGCCTTTG AGTCAACGAC	3900

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ATGTAGAATC TGATGGCCTT GTCTTTGATC CAGCACAAAT CACAAGTCGA ACAGCTAGAG	3960
GTGTTGCAGT GCCACACGGA GATCATTACC ACTTCATCCC TTA CTCTCAA ATGTCTGAAT	4020
TGGAAGAAGC AATCGCTCGT ATTATTCCCC TTCGTTATCG TTCAAACCAT TGGGTACCAG	4080
ATTCAAGGCC AGAACACCA AGTCCACAAC CGACTCCGGA ACCTAGTCCA GGCCCGCAAC	4140
CTGCACCAA TCTPAAAATA GACTCAAATT CTTCTTTGGT TAGTCAGCTG GTACGAAAAG	4200
TTGGGGAAGG ATATGTATTC GAAGAAAAGG GCATCTCTCG TTATGTCTTT GCGAAAGATT	4260
TACCATCTGA AACTGTTAAA AATCTTGAAA GCAAGTTATC AAAACAAGAG AGTGTTTCAC	4320
ACACTTTAAC TGCTAAAAA GAAATGTG CTCCTCGTGA CCAAGAATTT TATGATAAAG	4380
CATATAATCT GTTAACTGAG GCTCATAAG CCTTGTTTGA AAATAAGGGT CGTAATCTG	4440
ATTTCCAAGC CTTAGACAAA TTATTAGAAC GCTTGAATGA TGAATCGACT AATAAGAAA	4500
AATTGGTAGA TGATTTATTG GCATTCCTAG CACCAATTAC CCATCCAGAG CGACTTGCA	4560
AACCAATTC TCAAATTGAG TATACTGAAG ACGAAGTTCG TATTGCTCAA TTAGCTGATA	4620
AGTATACAAC GTCAGATGGT TACATTTTGG ATGAACATGA TATAATCAGT GATGAAGGAG	4680
ATGCATATGT AACGCCTCAT ATGGGCCATA GTCAGTGGAT TGGAAAAGAT AGCCTTTCTG	4740
ATAAGGAAAA AGTTGCAGCT CAAGCCTATA CTAAAGAAAA AGGTATCCTA CCTCCATCTC	4800
CAGACGCAGA TGTTAAAGCA AATCCAAGT GAGATAGTGC AGCAGCTATT TACAATCGTG	4860
TGAAAGGGA AAAACGAATT CCACTCGTTC GACTTCCATA TATGGTTGAG CATAAGTTG	4920
AGGTTAAAAA CGGTAATTTG ATTATTCCTC ATAAGGATCA TTACCATAAT ATTAAATTTG	4980
CTTGGTTTGA TGATCACACA TACAAAGCTC CAAATGGCTA TACCTTGGA GATTTGTTT	5040
CGACGATTAA GTACTACGTA GAACACCTG ACGAACGTCC ACATTCTAAT GATGGATGGG	5100
GCAATGCCAG TGAGCATGTG TTAGGCAAGA AAGACCACAG TGAAGATCCA AATAAGAACT	5160
TCAAAGCGGA TGAAGAGCCA GTAGAGGAAA CACCTGCTGA GCCAGAAGTC CCTCAAGTAG	5220
AGACTGAAAA AGTAGAAGCC CAACTCAAAG AAGCAGAAGT TTTGCTTGGG AAAGTAACGG	5280
ATTCTAGTCT GAAAGCCAAT GCAACAGAAA CTCTAGCTGG TTTACGAAAT AATTGACTC	5340
TTCAAATTAT GGATAACAAT AGTATCATGG CAGAAGCAGA AAAATTACTT GCGTTGTTAA	5400
AAGGAAGTAA TCCTTCATCT GTAAGTAAGG AAAAAATAAA CTAATGAAAA ATGAAAGTCT	5460
CGATAAAGAG GCTTTCATTT TTATTATGTA TATATGTAAA ATTCTTGACA AGCAATATTA	5520
AAAAGAGTAA ACTATTAAGT AGTTAATTAA CCGGTTTATT ACTTTATAGT GAATCAAATA	5580
TACTTAAGAA AAGAGGAAAG AATGAAAATT AATAAAAAAT ATCTAGCAGG TTCAGTGGCA	5640
GTCCTTGCCC TAAGTGTGTTG TTCCTATGAA CTTGGTCGTC ACCAAGCTGG TCAGGTTAAG	5700

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AAAGAGTCTA ATCGAGTTKc TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTACTA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTGCAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTCAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCCCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGTCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCCCT TCGTTATCGT TCAAACCATT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTCGAAAA	6780
GTAGGCGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTCAACCA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAAAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

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GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCCCTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAAAG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA ACACTATTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GAAAAAAGA ACTGATTCTT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTCAATTG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCCTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGTIT	240
GGTGCAATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTC TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCCGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TTCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

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CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACCTTGAGT AGCTTCTTTC TCAACCTGTG CTTCTGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTTGAGAC CTTCTTGCAT AACAAGTCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTTTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTCA GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCGCCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTMTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TGC GCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTTCC TTCAACAGGT TTCATCACTG CCTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CCTGTAACT CGTCTTTATC CTTGATAGCT TGGGAAAATC	1440
CACGAAAAG CTGAGACGTA ATCACTCCTG AGTTCCACG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAACG TAGAAGCTGG CTTGTCTGCA ACTTCTTTAG	1560
CACCATTTTC AATGGTCATT CCCATATTTG TCCCAGTATC TCCATCTGGA ACTGGAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTGG ACACGGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATTCCAAGC TGGTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTTCCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11915 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

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CCGGGTTGGG CTGTTGCCCC ATTAAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGGAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAAGTGA AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTAAACTA	660
CAGCCTTCCA AGCTGTTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTT	720
TGTACCAAGT TTTTGACTTG GCGCGTAGC TCAGGTGGTT AGAGCGCACG CCTGATAAGC	780
GTGAGGTGCG TGGTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GGCTTGTTC CGTATAAACT ATTTTGAGG	900
ATTACCCAAG TCCGGCTGAA GGGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCCGAA GGTGCTAGGT TCAAATCCTG CTCGCCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GCGGTTTGA TTCCGTCTCG	1140
CGCCATTAT ATATTTTGA AGGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAAATCCG	1200
CTCCTTCGGG TTCGGGGGTT CGAATCCCTC CCCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATTATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGG CATGCGTGGG	1380
TTCGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGCTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGCT GGAATCAAAA TCCAGTGTCC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CGGTATAGTA TAGTGTTAGG AACGTTGTTA TTCTTCGTTT CTTTTTATA	1620
TTATTTTGG TATAATTATA GTTATCAAAA TTTTATTTAG ATTAAGAAAG TGTAGGGGAG	1680
TATGTCTGT TCTATCGATT TATTAAAACA TCGGTATTTG AAAATATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTTGCA AGTTTAGAAG GGGATGCTAC	1800

AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAACTC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTT GACTATCTAA ATCATTTCTGC	2460
GATTTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCAAGAG AAGGATTTTG AAATCATCG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAATACGAT TATTGAATTT TCCAAGACT TACTCCTACT	2880
AGCTGAGGAG GGAAGTAGTG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATG AGCCTATAAT TTCTCTTATA AAGGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGTGTT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTITAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTTCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACAGCGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTTGGCA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

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TGGTGTGAGC AAGATTCAAG AGTTACAAAT GACCACTCAG ACTGGCGACA ATACTCATGT	3600
TATTGCTATT GATGGTAACT TTGACGATGC GCAAACAAAT GTGAAGCACA TGTTTAACGA	3660
CGTGGCTCTT CGTGAAAAAT TGAATACCAA CAAGTTGCAA TTTTCATCAG CTAATCTAT	3720
GAACATTTGGT CGTCTGGTGC CACAAATTGT TTATTATGTT TATGCTTACG CTCAATTGGT	3780
TAAGACTGGT GAAATTGTAG CTGGTGAAAA GGTAACTTC ACAGTACCAA CAGGAAACTT	3840
TGGAATATC TTGGCTGCCT TTTATGCCAA ACAAATTGGT TTGCCAGTTG GTAAATTAAT	3900
CTGTGCTTCA AATGACAACA ATGTTTGGAC AGACTTCTTT AAAACACGTG TCTATGACAA	3960
AAAACGTGAG TTAAAGGTAA CAACCAGCCC ATCTATGGAT ATCTTGGTAT CTTCAAACCT	4020
GGAGCGCTTG ATTTTCCATC TTTTGGGAAA TAATGCTGAA AAGACAACCTG AACTTATGAA	4080
TGCCCTGAAC ACGCAAGGAC AATATAAGTT GACAGACTTT GATGCAGAGA TTTTGGACCT	4140
CTTTGCAGCT GAATATGCGA CTGAGGAAGA AACGGCAGCA GAGATCAAGC GTGTTTGTGA	4200
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CCAATCGGCC ACTGGAGATG TAACTAAGAC AGTGATTGCT TCAACAGCTA GTCCATACAA	4320
GTTCCAGTA GTTGCAGTAG AAGCTGTAAC TGGAAAAGCA GGTTTAACAG ACTTTGAAGC	4380
CTTGGCTCAA TTACATGAAA TCTCAGGCGT TGCAGTGCCA CCAGCAGTTG ATGGGCTTGA	4440
AATAGCTCCA ATTCGTCACA AGACAACAGT GGCAGCTGCT GACATGCAAG CAGCGGTTGA	4500
GGCTTATTTA GGACTTTAAG ACAGAGGGAG CAAACTCGGT TGGGAAACCA ACTGAGTTTC	4560
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TCATTTAGGA TTGATAGCTA TTTCAGGGGT TTCAGTAGCT GGTAATATTA TCACCATTTA	4740
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GGGGACGGAG AGGGATGTAG CTGAGAGTGG TGGACTGTAT CTATCTTTGG TAGGCGGATC	4980
GATTGTTCTC TTAGGTTTAA TGAATAGTCT AGGAGCCTTG ATTCGTGCAA CGCATAATCC	5040
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AGCTATTTTT GTTCTGGATA TGGGGATAGC TGGTGTGCT TGGGGGACAA TTGTGCTCG	5160
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TGTTTATGAT AAGGAACTGT TGACCTTGCC TTTACCAGCA GCTGGAGAGC GACTTATGAT	5280
GAGGGCTGGA GATGTAGTGA TCATTGCCTT GGTGCTTCT TTTGGGACGG AGGCAGTTGC	5340

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CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCTTTTT ATGCGACAAG	5700
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GGGCTTGCCT GGTATTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTATTCTCT	5820
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TACTCATAAG GGGAAACAACG CTTTACCAT TCTCAAGGAC TTGGGGTGG AATCCTATTT	6240
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GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
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TAATCAAGTG ACCGTTGATG ATCAAACTGT TCAGGTTGCA GACCTTCTC AACCAATTGC	7080

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AGAAGTTACA AAGACAGTGA TTGCTTCTGA AGAAGTGGCA CCATCTACGG GCACTTCTGT	7140
CCCAGAGGAG CAAACGACCG AAACAACCTCG CCCAGTTGAA GAAGCAATC CTCAGGAAAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCATCAG CAGTGGAAGT	7260
AACTACAACA AGTTCAGAAG CAAAAGAAGT AGCATCATCA AATGGAGCTA CAGCAGCAGT	7320
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AGCTGCCTTT AAAGAAGAAA TTGCTAACTT GTTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAATTA GGGGATAAGA TTGCGGAATA TGCTATTCAA AATATGGCCA GCCGTGGCAT	7620
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TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTCGTGA TGGAAAGCGA TTCTCGTTCG TTTTTCCTTT GTCATACTCT TCGAAAATCT	7860
CTTCAAACCA CGTCAGTTT ATCTGAAACT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
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ATATCAGGGT TAAGGAAGAG ATAGAAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
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GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
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CGGAACCTGT CAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGAAGGATA TAGAGGAGAA	10440
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TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAATC ATACAGTGTG TCCTTGGGCA CACTGTATGA ACTGGGACTG	10620

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ATGTAATAAC TATACACGCG CTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG	11640
TATCCGCTTG ACTAGCTACC ACAATCTTTA CTTCTTGCTT AACCTGATGA AGCAAGTGCG	11700
ACAAGCCATC ATGGATGACA ATCTCTTGA ATTCCGTGAG TATTTTGTGG AAAAAATATG	11760
CTATAATAAG TCAGGACGTA ATTTCTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTT	11820
CTCTTAGGAT TTTTCTTCT TTTTGTATAG AATAAAGTGT ACAATGAAAG GAAGAATAAA	11880
CTCGTATGCG CATTAAATGG TTTTCCTCGA TTAGG	11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTTCTGGT TTGCAGATAT TCAAGAATCG	60
GGAGTTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAA AATACGGACA	120

741

GCATCCTCCA TCTTTTCTG GCCTTCCTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCCA CA GATAACAAT TCGGAAATAG GTCTCATTTT CCTTG TAGAA ATGCTCTTCG	240
ATAACACGTT TAAAATAATA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAAG	300
CCATTCAATA GTATAGTATG AAAAAGGTTT CGATTGCCAG ACATTTCAT TAGAAAATCA	360
GATTTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TTCCTTCCTC TGCTGTTAAG TCTACCTTT CATCTATGCT CTTCATATAA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAATG GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATATT CTTTGGTTCC AAGACATCTG	660
TAATTTCTTT TCTCAACTCA GAATCTGTAT CATACTGGAA ACCTCTTGCC AGAAAGAGGA	720
TCTCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAAATAG AAACTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTTCAAAA CGGGACAACA TAGACGGCGA AAATGTCTCT CCGGTGCTT	840
GTCTCAGTA GATATTTCTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTTGATTCCG TATTTTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAACTTGCC AAATGTGAG AATTATGAGA AAATAGAGGA TATTTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AAATCAATGA CCGTGCTTTG GCCTTGCAAG ACCAAATTAT	1080
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TACTGCCTGT GATTGCGCCG AAAGCCTGCC TATTGAAATC GTGGCAGGTC TGAACAAAT	1260
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TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCAAAA CACTGTTTTG AGGTTGTGGA TAGAACTGAC GAAGTCAGTA ACCATACCTA	1620
CGGCAAGGCG ACGTTGACGT GATTGAAGA GATTTTCGAG TATGAGTTTA TTTTACCT	1680
GACTTGTC CA TATCCAGAA GTCTGTCACG GCTCCGCTG AAGCAGATGA TACGATGTGG	1740
GCATATTTAC CGAGGACACC ACGGCTGTAA AGTGGTGGCA AGGTTGTTTC TGCCTTGCCT	1800
TTTTCAAGTT CTCTTCGGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

742

ACGATATCGC CGGTACGGAG ATAGGCAATT GGTCCACCAT CCTGAGCTTC AGGAGCGATA	1920
TGTCCAACAA CCAGACCATA AGTACCACCA GAGAAACGTC CGTCCGTCAA GAGGGCCACC	1980
TTATCTCCCT GACCTTTACC AACAAATCATT GAAGAAAGTG ATAGCATCTC AGGCATACCA	2040
GGACCACCTT TAGGTCCAAC AAAACGAACA ACGACTACAT CGCCATCAAC GATTTCATCT	2100
GTCAGAACGG CCTGAATCCG ATCTTCTTCT GAGTCAAAGA CCTTAGCTGG CCCAACGTGA	2160
CGACGCACTT TAACACCTGA TACCTTGGCA ACTGCACCGT CAGGAGCAAG GTTCCCGTTC	2220
AAGATGATAA GCGGACCATC CGCACGTTT GGATTTTCAA GTGGCATGAT AACTTTTGG	2280
CCTGGAGTCA AGTCTGCAAA GTCAGCCAAG TTTTCAGCTA CAGTCTTACC AGTACATGTG	2340
ATGCGATCTC CGTGAAGGAA ACCATTTGCC AACAAATACT TCATAACCGC AGGGACACCA	2400
CCGACTTCGT AGAGGTCTTG GAAGACATAC TGACCAGATG GTTTCAAGTC GGCCAAGTGA	2460
GGCACACGTT CTTGAATCGT ATTGAAGTCC TCAAGTGACA AGTCAACATT TGCGGCATGG	2520
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CATCTATCTT GCATTATAAA TTCTAGAAC CTCTCTTTT ATATTCGATT CACTCAAACC	3660

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ATACTCATTA AGAAGATAAT CCATTTTCCC TACTTGACCG AATCTTTCTT GAACACCCAT	3720
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AAATAATTGA TCAAATACTC TTCGTGAAGC AAAAGGACCA AATGTATGAA GATAAGGTCT	4320
AAACCCCTGA ATAGACAAGC CTGCTGCAAG GCCGACCATT TCTGCTTCCA TAATCCCAAC	4380
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ATCGGCTTCT AAGACTACTA TATCAGAATC ACTTTGATTA GCCTCTAAAA GGAAGTCTCT	4500
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TTGGATTTCA TTTCTTCCAG CTCTTGAACC CCTTGACCTT TAATAGTATC TAATACAATG	4680
CACTTAGGTG ATGAATTATT TGACTGTTTT AATTGGACAA TCCCTTCATA AATTCTCTA	4740
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CTTCCTCCGT AATGTCCGAA TCCAAGATGA TTCAATGTTC TAAGAGTATT TAATCGGATG	5340
TTAGTCGCAA ATTTTCTTAA CCCATCTTCT CTATTTTAC TTAATAATCAT CCCTTATGCC	5400

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AGACCAATCA CAATGCCTGC TTGTGAGCCA AATTGATTTA ACATTCCTAA AATAATTCCT	5520
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TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAAATACCT	5880
TTAAAGGCTG GAACAATTC GCCCAAAATA AGGCGAACAC CTGCTAAAT AACAAATACC	5940
CCTGCTGCAA ATTGACCTGC TAATTGTAAA GCATAAACTA GACCACTTGT ACCACTACTG	6000
ATTTCTTTTT CTATATATTC TGACCCTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAG CTAAACTCTT TGGAAATTTA	6120
ATGTCTCTG TTGATTTTGA TTTGTCACCG ATAAGGCTAC CAGTAAACC ACTCAACCA	6180
TATCCCAAG AACTGAAATG ACCTAAAGCT ACCTTGTCAT TTCCAGTTAA TTGAACCATA	6240
TATTTTTGCA CAAATGCTGG GGAAATACTC ATAATAATAC CGAGTGCTAA TCCTCCTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATACATGCC	6360
ATATATAGAG TGTGGTGCCC TGTTAAAAA ATATATTTAA ATCGAGTAAA ACGAGCGATT	6420
AAGATATTGA ACACCATGCC TGCAAACATA ATCATTGCAG TAGCTGAGCC ATATGTTGTT	6480
AAAGCTACAG CTACAATTGC TTCATTATTC GGCACAACGC CAGATAAATG AAAAGCATGC	6540
TCAAACATGG TACCAATGG ATTTAAAGAA TTTGTACAA TTCTGCACC ACCAGATACA	6600
ACTAAGAAAC CAACAAAGGT CTTAATTCCA CCTTTAATAA TATCAGGTAA TTTCTTCTT	6660
TGAAGAACTA ATCCTAAGAT TGCAATTAAA GCTACTAAAA TAGCTGGTGT ACTAACAATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCTTTTC TTCACAAAGT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATGAC TAGCTGAATC AGCTAGATCA CGACCAACAA TCCAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAATGTTCA ACTTCTACAT CCGAAACATT CAAATCACTC	6960
AATACAGATT CAATATTCAT CTGTACCATA AAACCTGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TTAAATTTGT TGTTAAATGT	7140
GACAAAGCCT TTAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

745

TCTTGTTCTG GATTATCCAA TAAATAAATC GGTTCTTCCA AAACATAACAT TGACATTTCCT	7260
ATTTTCATTCA CACCTTCATC TGGCCGAGCG TGAGGAATTG CTAATCCCTT CCCTAAATTA	7320
ATAAAAGGTC CAAACTCTTC TACTTTTTGA ATCATTGCCT CAGGGTAGTT CTCAGTTATC	7380
TTATCTTGAT CCAAAGCGG TTTAGCTGCT AAACGAATCG CCTCCTTCCA TCCTAATTTT	7440
TGCGAACTAA CCTGATAGGT TTCTTTGGTA ATAAGTTGTT CTAGCACTGG TACAATTTC	7500
TTTCTATCAT TTTTTTGGTA AAGATAATTC TTTAACGCCA ATCTTAATTC CAATTCCTGT	7560
GTAATAATTC CATATCTTTT GACAATATTC AGGATTGTT CAATCTCAA ATCTCCATAC	7620
TCTAAATTCG GAAATCTTT TAACACTAGT TCTACTAGTT GTATTGCTTG CTCTTCAGTC	7680
ATCATAACCG AAACATAGATA ATTTGGCTTT TCTGTCTCCA CCTTTATGGT AGAAAAAACC	7740
ATATCATAGT CACTACTAGC TTTCACCTGT AAATCATCAA TCTTTGAGGT TCCTATAAAC	7800
TCAATTTGAG GAAATAATGC TAATAGATTC TCTTTTAACA TCAATGAAGA ACTAACACCA	7860
TTAGACAAA TGATTGCTGC TTTATACCAT TTTTGAGGCA AAGTATCTGC TTTCTTTAAA	7920
TAACCTCCGA AATGGATAAC AAAATATGCT GTTTCACAT CAGGTATGGG ATTGTCAATA	7980
GCGTCCATCA AGGGCATCAA AGAATCTTTG ACTAATTCOA ATAAATCAGG ATAATGTTCT	8040
TTAACATGCA ATACATATTC ATTTGAACTA GGTAGGCCGA ACTTTAATCT ATAGTAAGCC	8100
GGTATAAGGT GCGGCGAAG ATTTTCTCTC AATCCTTCCC TTTGTTTAAA ATGTAACAAA	8160
GAAATATCTT CCATTCTACT TATAATAGCC TCTGTTAATT GATTAAAGTA AACCGGAGCA	8220
ACATCTACTT CACCTTCAA GCAACTTGAT AATAAACCGG TGATATAGCG ATAATCATCC	8280
TCAGAAAAA CCGTATCTAT AATTCCTCAA TCAACCACTG TATCCAATAA AATAGTGGTT	8340
ATATCTTGAA TAACAGGAGA TACTAATGTC TCTGAAAGAC ATACTCTTTC AACATCCCTT	8400
TGATACCTAC ACAGAATGAA TACTAAACCG AAAAGGTAAA CTTTAAATTG ATTAACAATA	8460
GGTACTAGCT GTAGCTTCTC ATAATAATCT TTAACCTACCT GATCAATCAA ATCATAAGTT	8520
AATGAATACC CCCAATGGA TAAACATAA TCCAAACCCC AATCCCTAT GGAGGATTCC	8580
AGCAACTCAC TAACCATTTG AAAAGCTAAG CGGTGCTTAT TCCACTCTGA ACCGTGTAAA	8640
GTATAACCTT TTGCTCTACT GTACCCTAGC TCCAAATCAT TATCTAACAT AATCTTCTT	8700
AATGATTGAA TATCAGATAA GGTGTATTC TTACTTACTT TCAAAAAGTC TTGGTAATGA	8760
CTATTCGATA TAAATCTAA TCGGCAAAAA GTGTAAAGAT AGATTAAAGC TAAGCGAGTC	8820
GACTTTGGTA AAACCAATTC ATCCGACTTA ATAATATCTG TCAAAGACTG CTTCGTACGA	8880
TTTGATAAAC TATAGCGACC TTGCTTTTAA TCCAGCACTA TCCCTTTATT AGCTAGATAA	8940

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GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCCTTGCA AGTGTAGCAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAATC GGGTTTAACT TTGAAGAATC AGGTTCTTTA GCTGCATACG	180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCAAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACTTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AAACATATGT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTCACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTTGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTGCAGC	960
CTTGGCTTAT GATTCACTC ACCTTGCTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAAACAAA AGATTTTGAA GGTGTAACCTG GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAACCCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

747

ACGTCGCCTT GGATTATATA TGTGACTGAC TTCGTCAGTC TTATCTACAA CCTCAAAGCA	1320
GTGCTTTGAG CAACCTGCGG CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATAA	1380
GAACCTATCA AAAAGTGAGG GAAAACCTC GGAATTATAA ATAGAAAGAG TGAATCTTAT	1440
GCTCCAACAA CTCGTAAATG GTTTGATTCT AGGTAGTGTT TACGCGCTGT TAGCCCTAGG	1500
ATATACCATG GTTTACGGAA TTATCAAGCT CATCAACTTC GCCCATGGTG ATATTTATAT	1560
GATGGGAGCC TTTATCGGTT ATTTCTTGAT CAATTCCTTC CAAATGAATT TCTTTGTAGC	1620
GCTTATTGTA GCTATGCTAG CGACAGCTAT TCTTGGTGTC GTGATTGAGT TTCTTGCTTA	1680
CCGACCTTTG CGCCACTCTA CTCGTATTGC TGTTTTGATT ACGGCTATTG GGGTTTCTTT	1740
CCTATTGGAG TATGGAATGG TCTATCTGGT TGGTGCCAAT ACCCGTGCCT TCCCTCAAGC	1800
GATTCAAACA GTTCGATATG ATTTGGGACC AATTAGCTTA ACAAATGTGC AGTTAATGAT	1860
TTTGGCCATT TCCTTGATTT TGATGATTTT GTTACAAGTC ATGTGCCAAA AGACTAAGAT	1920
GGGGAAGCC ATGCGTGCG TATCAGTAGA TAGCGACGCG GCGCAATTGA TGGGGATCAA	1980
TGTAAACCGT ACGATTAGCT TTACCTTCGC TTTGGGTTCT GCTCTTGCGG GTGCGGCTGG	2040
TGTTCTGATT GCTCTTATT ATAACTCTCT TGAGCCTTG ATGGGGTTA CTCCAGGTCT	2100
TAAATCTTTC GTTGCCGCG TACTTGGTGG TATCGGAAT ATTCTGGTG CGGCTCTTGG	2160
TGGCTTTGTG ATTTGCTCTAT TGGAAACCTT TCGGACTGCC TTTGGGATGT CAGATTTCCG	2220
TGATGCCATT GTTTATGGAA TCTTGTGTT GATCTTGATT GTCCGCCAG CTGGTATCCT	2280
TGGTAAGAAT GTGAAAGAGA AGGTGTAAAC GATGAAGGAA AATTTAAAAG TTAATATTCT	2340
ATGGTTACTC CTTTTGTTAG CTGGCTATAG CTTGATTAGT GTACTGGTTT CAGTCGGAGT	2400
ACTTAATCTA TTCTATGTAC AGATTTTACA ACAAATTGGA ATTAATATTA TTTTGGCTGT	2460
TGGTCTCAAC TTAATCGTTG GTTTTTTCAGG ACAATTTTCA CTTGGTCATG CTGGTTTCAT	2520
GGCGATTGGT GCCTATGCAG CAGCTATTAT TGGTTCTAAA TCACCAACCT ACGGTGCCTT	2580
CTTTGGAGCT ATGCTTGTAG GGGCTTTGCT TTCAGGAGCA GTTGCTTAC TTGTGGCAT	2640
TCCAACCTTG CGCTTGAAGG GGGACTATCT TGCGGTAGCA ACTCTGGGTG TTTCTGAAAT	2700
TATCCGTATC TTTATCATCA ATGGTGAAG CCTTACAAAT GGTGCGGCAG GTATCTTAGG	2760
GATTCCTAAC TTTACAACCT GGCAATGGT TTAATCTTT GTGCTGATTA CAACCATTCG	2820
AACCTTGAAC TTCTTGCGTA GCCCAATTGG TCGTTCAACC CTCTCTGTTT GTGAAGATGA	2880
AATCGCTGCT GAGTCAGTTG GGGTTAATAC GACTAAAATT AAAATCATCG CTTTGTCTT	2940
TGGTGCCATT ACTGCAAGTA TTGCTGGGTC ACTTCAGGCA GGATTTATCG GGTCTGTTGT	3000

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ACCGAAAGAT TACACCTTCA TCAACTCAAT CAACGTTTGG ATTATTGTTG TATTTGGTGG	3060
ACTCGGTTCC ATTACAGGTG CGATTGTTTC GGCTATTGTT CTGGGAATTT TGAATATGCT	3120
TCTCCAAGAT GTTGCTAGTG TCGTATGAT TATTTACGCT TTGGCCTTGG TATTGGTAAT	3180
GATTTTCAGA CCAGGTGGAC TCCTTGGAAC ATGGGAAC TGAGCTATCAC GTTCTTTTAA	3240
AAAATCTAAG AAGGAGGAAC AAAACTAATG GCATTACTTG AAGTAAACA GTTAACCAAA	3300
CATTTTGGTG GTCTAACAGC TGTGGAGAT GTGACTCTTG AATTGAACGA AGGGGAAC TG	3360
GTTGGATTAA TCGGTCCAAA CGGAGCTGGG AAAACCAACC TTTTCAACCT TTTGACCGGT	3420
GTTTATGAAC CAAGCGAGGG AACAGTAACC CTAGATGGTC ACCTTTTGAA TGGGAAATCA	3480
CCTTATAAGA TTGCCTCTTT GGGACTTGA CGTACTTTC AAAATATCCG TCTCTTTAAA	3540
GATTTAACAG TTTTAGATAA TGTTTGTATT GCTTTTGGA ACCATCACAA ACAGCATGTT	3600
TTTACTAGTT TCTTACGCTT ACCAGCTTTT TACAAGAGTG AAAAAGAATT AAAGGCTAAA	3660
GCTTTGGAAT TGTGAAAAT CTTTGATTTA GATGGTGATG CAGAGACTCT TGCTAAAAAT	3720
CTTCTCTACG GACAACAACG TCGTTTGGA ATTGTTCTGT CCCTTGCTAC GGAACCTAAA	3780
ATTCTCTTCT TAGATGAACC AGCAGCAGGT ATGAACCCAC AGGAAACAGC CGAATTGACT	3840
GAGTTAATTC GTCGTATCAA AGATGAGTTT AAGATTACAA TCATGTTGAT TGAACACGAT	3900
ATGAATCTGG TCATGGAAGT AACAGAACGT ATCTACGTAC TTGAATATGG CCGTTTAATC	3960
GCTCAAGGAA CTCCAGACGA AATTAAGACC AATAACGCG TTATCGAAGC TTATCTAGGA	4020
GGTGAAGCCT AATGCTATG TTAAGAGTTG AAAATCTTTC TGTGCATTAC GGTATGATCC	4080
AAGCAGTTCT TGATGTAAGC TTTGAAGTTA ATGAAGGAGA AGTTGTTTCC CTTATCGGTG	4140
CCAACGGTGC AGGTAAGACA ACTATTCTTC GCACCTTGTC AGGTTTGGTT CGACCAAGTT	4200
CAGGAAAGAT TGAATTTTGA GGTCAAGAAA TCCAAAAAAT GCCAGCTCAG AAAATCGTGG	4260
CAAGTGCTCT TTCACAAGTT CCAGAAGGAC GCCACGTCTT TCCTGGCTTG ACTGTTATGG	4320
AAAATCTTGA AATGGGAGCT TTCTTAAAGA AAAATCGTGA AGAAAATCAA GCTAACTTGA	4380
AGAAGGTTTT CTCACGCTTT CCTCGTCTTG AAGAACGGAA GAACCAAGAT GCAGCCACTC	4440
TTTCAGGGGG GGAACAACAA ATGCTTGCCA TGGGACGCGC CCTCATGTCA ACACCAAAAC	4500
TTCTTCTTTT AGATGAACCA TCAATGGGAC TTGCCCAAT CTTTATCCAA GAAATTTTGG	4560
ATATCATTC AATGATTTTCA AAGCAAGGAA CAACGGTCCT CTTGATTGAA CAAAATGCCA	4620
ATAAAGCACT TGCAATCTCT GACCGAGGAT ATGTACTGGA AACAGGGAGA ATCGTCCTAT	4680
CAGGAACAGG AAAAGAAGCT GCTTCATCAG AAGAAGTCAG AAAAGCATAT CTAGGTGGCT	4740
AAAAAATCC AGTGGATTGT TTAGTCGGC AGATGGAGAT TACGAAGTAA TCATCAATAT	4800

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AGTCCGGGG ACCTTTT TAG TCGGTAGATT GAGATTGCAA ACAAATCTGC ATCTACATTG	4860
AAAGCTTAAT TTCTAATAAT TGAAAAAATC GAATGAAAAA TTTCTTACCT TCATTACAG	4920
AGCTCGATTT CAGAGCTCTT TTTGCTAGCT TATTCATACT TTTCTGAATT TCGAAAAAGA	4980
AATGTAAGCG TTTGATAGAT TTACAAAAAG ATTGTATAAT AGGGATAAGA ATAGAAAAGG	5040
AGAAGTCTCA TGGCAGTTAA AGATTTTATG ACCCGCAAGG TAGTTTATAT TAGTCCAGAT	5100
ATAACAGTAT CTCATGCAGC AGATTTGATG AGAGAGCAAG GTTTGCACCG TCTGCCTGTT	5160
ATCGAAAATG ATCAATTAGT TGGTTTGGTG ACTGAGGGAA CCATTGCACA AGCAAGTCCA	5220
TCTAAAGCAA CAAGTCTTTC TATCTATGAG ATGAATTATC TTCTGAATAA GACAAAAGTA	5280
AAAGATCTCA TGATTGCGGA TGTGTGCACT GTCTCAGGCT ATGCTAGTCT AGAAGATGCA	5340
ACTTATCTGA TGTGAAAAA TAAGATTAGT ATTCTCCCTG TCGTAGATAA CCATCAAGTA	5400
TACGGAGTTA TTACTGACCG TGACGTTTTC CAAGCCTTTC TTGAAATGCG AGGTTATGGC	5460
GAAGAAGGGA TTCGTGTACG CTTTGTTACA GAAGATGAAG TTGGTGTCT TGGAAAAATT	5520
GTTTCTTTGA TTGTAGAAGA AAATTGGAAT ATCTCCCATC CAGTCAATAT TCCGCGTAAG	5580
GATGGTAAGG TGATTATCGA AGTGCAAATC GATGGATCAA TTGATTTACC AGCCTTGAAA	5640
GAAAAATTTG AAGCAATGG TATTCAAGTG GAAGAAATCG CTCGCACTTC AGCAAAAGTC	5700
TTGTAAGAAG GGAAGCCCAA AGGCTTCTTT TTTCATGAAA AGGGGATTAG AGCAAAAGAT	5760
GGAAAGAAAT GATAAATAT GCTATAATGA AATAATGTAA AAAAGGAGTA TTTATGGACA	5820
TTTCAGTAAT TCGTCAGAAA ATTGACGCAA ATCGTGAAAA ATTAGCTTCT TTCAGGGGGT	5880
CTCTTTGACC TCGAAGGGCT AGAGGAAGAG ATTGCCATCT TGGAAAACAA GATGACAGAA	5940
CCTGATTTTT GGAACGATAA TATTGCGGCC CAAAAACGT CGCAAGAATT AAATGAATTA	6000
AAAAACACTT ACAATACCTT CCATAAGATG GAAGAGTTGC AGGATGAAGT CGAAATTTTA	6060
TTGGATTTTT TGGCTGAAGA CGAGTCAGTG CATGATGAAC TGGTAGCGCA GTTAGCCGAA	6120
CTTGATAAGA TAATGACCAG CTACGAGATG ACTCTACTCT TGTCAGAACC TTATGACCAC	6180
AACAATGCCA TCTTGGAAT CCATCCAGGT TCTGGTGGTA CTGAGGCGCA GGACTGGGGT	6240
GATATGTTGC TTCGTATGTA TACTCGTTAT GGTAATGCTA AAGGCTTTAA AGTGGAAAGT	6300
TTGGATTACC AAGCAGGTGA TGAGGCTGGT ATTAAGTCGG TAACTTTATC ATTTGAAGGG	6360
CCTAATGCCT ATGGTCTCCT CAAGTCAGAA ATGGGTGTTT ACCGCTTAGT GCGAATCTCA	6420
CCATTGACT CTGCCAAACG TCGCCATACC TCTTTCACAT CTGTAGAAGT GATGCCAGAA	6480
TTGGATGATA CTATTGAAGT GGAAATCCGT GAAGATGATA TCAAGATGGA TACCTTCCGT	6540

750

TCAGGTGGTG CCGGTGGACA AAACGTCAAT AAGGTTTCAA CAGGTGTACG TTAAACCCAC	6600
ATTCCAACGT GAATTGTTGT CCAATCAACA GTAGATCGTA CCCAGTATGG AAATAGAGAT	6660
CGTGCCATGA AGATGTTGCA GGCTAAGCTC TATCAAATGG AGCAAGATAA GAAGGCTGCG	6720
GAGGTAGATT CTCTCAAAGG TGAGAAAAAG GAGATCACTT GGGGAAGCCA AATCCGTTCT	6780
TATGTCTTCA CGCCTTATAC TATGGTAAAA GATCACCAGG CTAGCTTTGA GGTGCTCAG	6840
GTAGATAAGG TTATGGATGG GGACCTAGAT GGTTTTATCG ATGCTTATCT CAAGTGGCGA	6900
ATTAGCTAAG ATAGAAAGGA ACTCACATGT CAATTATTGA AATGAGAGAT GTCGTTAAAA	6960
AATACGACAA CGGAACAACT GCTCTACGCG GTGTTTCGGT TAGCGTTCAA CCGGGGGAAT	7020
TTGCTTACAT CGTAGGACCT TCAGGAGCAG GGAAGTCAAC TTTTATTCGT TCTCTGTATC	7080
GTGAAGTAAA AATCGATAAA GGAAGCCTAT CAGTTGCTGG TTTTAATCTG GTTAAGATCA	7140
AAAAGAAAGA TGTCCCGCTT CTACGTCGTA GTGTTGGGGT TGTCTTCCAG GATTATAAAT	7200
TGTTACCAAA GAAAACTGTC TATGAAAATA TTGCTTACGC TATGGAAGTA ATCGGGGAAA	7260
ATCGCCGTAA TATCAAAGA CGAGTGATGG AAGTTTGGGA CTTGGTTGGA TTGAAGCATA	7320
AGGTTGCTTC TTTCCCAAAT GAACTCTCAG GTGGGAGCA ACAGCGGATT GCGATTGCGC	7380
GTGCAATTGT AAATAATCCC AAAGTATTGA TAGCTGATGA GCCAACAGGA AATCTGGATC	7440
CGGATAATTC ATGGGAAATT ATGAATCTCT TGGAACGGAT TAACGTACAA GGAACAACATA	7500
TTTTGATGGC GACTCATAAT AGCCAGATTG TAAATACCTT GCGCCACCGT GTCATTGCCA	7560
TTGAAAATGG CCGTGTCGTT CGTGACGAAT CAAAAGGAGA GTATGGATAC GATGATTAGT	7620
AGATTTTTTC GCCATTTATT TGAAGCCTTA AAAAGTTTGA AACGAAATGG TTGGATGACA	7680
GTAGCTGCTG TCAGTTCAGT CATGATTACT TTGACCTTGG TGGCAATATT TGCATCTGTT	7740
ATTTTCAATA CAGCGAAACT AGCTACAGAT ATTGAAAATA ATGTCCGTGT AGTAGTTTAT	7800
ATCCGAAAGG ATGTGGAAGA TAATAGTCAG ACAATTGAAA AAGAAGGTCA AACTGTTACA	7860
AATAATGACT ACCACAAGGT ATATGATTCT TTGAAGAACA TGTCTACGGT TAAAAGTGTT	7920
ACCTTTTCAA GTAAAGAAGA ACAATATGAA AAATTAACCG AGATAATGGG AGATAACTGG	7980
AAAATCTTGG AAGGAGATGC CAATCTCTC TATGATGCCT ATATTGTAGA GGCAAACT	8040
CCAAATGATG TAAAACTAT AGCCGAAGAT GCTAAAAAAA TTGAAGGTGT CTCTGAGGTT	8100
CAAGATGGCG GTGCCAATAC AGAAAGACTC TTCAAGTTAG CTTCAATTTAT CCGTGTTTGG	8160
GGACTAGGGA TTGCTGCTTT GTTAATTTTT ATCGCAGTTT TCTTGATTTC AAATACCATT	8220
CGTATTACCA TTATTTCCCG CAGTCGCGAA ATTCAAATCA TCGCCTTGGT CGGAGCTAAA	8280
AACAGTTATA TCCGTGGACC GTTCTTGTTA GAAGGAGCCT TTATCGGTTT ATTGGGAGCT	8340

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ATCGCACCAT CTGTTTGGT CTTTATTGTT TATCAAATTG TTTACCAATC TGTCACAAA	8400
TCGTTGGTAG GGCAAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCCG	8520
CGATTCTTGA AGATTTAGGT AAAATAGCTG CTTTATGAG GAGATGTAA AATCTCCTT	8580
TTTGCTACAA GAGTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTCGCTTTC AAATTTCTAG GCTCAGGCTG AAACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GGGCTACTGG AAATCATTTC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATTCCT GACAAGATT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTCACCT TTCAGAACAA	420
AGACCCTGAG AAATTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTT ATCCTCTTTT	480
TCAGACTGTC TTAAAACTT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGGAAGCGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGGT TTTCGAACT TTGAAAACCT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTC CATAAAATT GACATGGAAA TTATAAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCCGC TTGGTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGACTTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTAAACAA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020

752

ACCCTTGTA	ATAACTGCGA	TACGATCTGA	AATAAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAAGACTTG	1140
GGCACGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGGCAA	TACCGATACG	TTGACGTTGA	CCGCCTGAGA	ATTTCATGAGG	1260
GTAACGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTCACGG	ATAATATTTT	GAACTTTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAACG	GTGATTGTAA	AGACCTTCAG	AAATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACCTGC	GGCAGGGTCT	TGGAATCA	TCTGGATTCTG	1440
ACGAATCAAT	TCCGCAGCTT	GTTACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTACTTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTT	1560
CCCACTACCG	GACTCACCTA	CAAGCGAGAA	AGTTTCTCCC	TTGTTGATAA	AGAAGTTAGC	1620
ATTTTAAACC	GCGACAACT	TCTTACTTCC	TTCACCGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTCTACTAAT	TTTTCAGACA	TTTCCTTCCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATTT	1740
TTTCACGGAT	CTTATCATGG	AGATTGCAA	TCACAGCTGG	TTTTTCTACT	TTCCGGAGCAT	1800
CCTCATGAAG	AAGCCAAGTT	TTAGCCCAAT	GTGTCTCTGA	TACTGAGAAT	TGAGGAGCTT	1860
TTTGTTTCGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAAGCA	TCCCCTTTCA	1920
GGTCAGTATA	AAGTGACGGA	GGTGTTCTCTG	GGATTGAGTA	AAGATCCCCT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCCTCAAC	CGTCCATAC	TCAACGATTT	CTCCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACCACACCA	AGGTCGTGGG	TAATAAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTPAAAGA	TTTTCAGAAA	TCAATAATCT	GAGCTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTGACGCAT	TCTCCAGAA	TATTGGAATG	GGTATTCAAT	AAAACGTCTA	TCTGCGTCTG	2340
GAATGCCAAC	CTTATTCATG	TAGTCAATGG	CCAATTCCTT	CGCTTCTTTA	GCTGTTTTC	2400
CTTGGTGTTT	TACAATAACT	TCTGTAATCT	GACTACCAAT	TGTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCCTGGAAG	ATAGTCGCAA	TCTTAGCACC	ACGAATTTGT	TCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGTCCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTTCAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAACG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTACGGA	ACGTCAAATT	CCACGACAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTTGTCAAT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820

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CAAGTCACGA TAGCGCAAGA TTTGCACACG GATCATGAAG GCAATACCAA TCCATGTTGT	3180
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GTGAGCCTT AGAATCTTCT AACATTAAGA CAAGAGTCTC TGTATCGTCC ATGCTATGTG	15960
GAGAAGGTAA GCCCTGTGGA CCATTCTGAC CTTTTAAAAT CTTTGCTTCT ACAAATCGAA	16020
AGTCTGTAC TTCAAGTACA CTATGCTGAA CCTGTATGGT TGGTTTCCTA AAATCTCCTA	16080
AGCCATGTTG TCCAAAAATC TGTGCTGAG TATCTAACT AAAGGTTTCA TTAGTAGCCG	16140
TTGGATTTCC TGAAAAGGCA TGGTCTCGTT CATAAACACT ATTGGAACCT TTATAGTTCT	16200
TAATAGTCTT TCCTAAATGT TTCAAAAGTA AGTAGCCATT TCGATTTTCA ATAATCAAAC	16260
TTAGATTTT ACTCTCAACA TAAATAGAT TATTCTCTAT CCTAACTCCC ATTTACTTCA	16320
CCTCATCACT TTATTGATTA TATTTTATCA CCTGAAATCG CTTTCCAAA TAGAAAAATG	16380
TCTCAAGAAT ATGGTAAAAT GTTAGGTAGG AGGTAGCACA TGTTAGTTT TTCAGAATAC	16440
CAGACTGGAA CAATCGACCT TGCCCTAAGC TTTTATGGAT ATGAGGAATG CACACCTAAT	16500
TACTCTTTG GTCCAGCCAT TCGTGATACA TACGTTCTAC ATTACATTAC TAAAGGACAA	16560
GGAAAATTC ATTACAAGG TAAAATTGTT GATTTAAAAG AAGGAGATT CTTTCTATTA	16620
AAACCAGAGG AACTAACCTT TTATCAAGCA GATAGTAAAG AACCTTGGC CTACTACTGG	16680
TTAGGAATCA CTGGAGGGAA AGCCCTGAT TATTTTGCTC TTCCCAAAT TTCTGATCAA	16740
TCCTATCTCA TCCAATCTGA AACTTGTCAT ACCCAGACTA CTGCAAACT CATCTCAGAC	16800
ATTGTCCGCT TCGCTCAGAT TACAAAATCA AGTGAATTAG CTCAACTCCA TATCATGGGA	16860
CAACTTCATG AACTGATGTT TCATCTGGGA ACTATTGCTC CCAATCAGAA AAAAAAGAAT	16920
ATTTTCATCA CCCACCACT CTATCTTGAA TGCAAACGAT TAATTGATAG CCACTATCCT	16980

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CAATCACTTA CAATTCAAGA TTTAGCAAAA GAACTATCCG TTCACAGAAG CTA CTTATCA	17040
AGCGTATTCA AAGAATTTAA TACCTTATCA CCCAAAGAAT ACCTACTCTA CGTTCGAATG	17100
CACCGAGCTA GACAACTTCT CGAAAAATACC CAAGAGTCCA TCAAGGTAAT TGCATACTCG	17160
GTAGGTTTTT CAGATCCACT CCATTTTTCG AAAGCTTATA AACAACTACTT TAATCAGACT	17220
CCAAGTCATA CAAGAAAAGA ATACTCTCAA TACCAACTAG TAAGAAAGGC AACATTATGA	17280
AATCCTACCA AGCTGTCTAC CAAATCCTAT CTAAAGAAAC CGACTATATC AGCGGAGAAA	17340
AAATCGCAGA AAAACTATCC CTAAGCCGAA CAGCAATTTG GAAAGCCATC AAGCGACTAG	17400
AACAAGAAGG CATTGAAATT GATAGTATCA AAAATAGAGG ATATAAACTG ATGAATGGTG	17460
ACCTTATTCT TCCAGAGATT CTAGAAGAAA ATCTTCCAAT TAAAGTCAGC TTTAAACCCG	17520
AAACAAATC AACACAATA GATGCAAAAG AAGCAATTGA TTTAGGCCAT GAAGCAAATA	17580
CCCTCTATCT AGCTTCCTAT CAAACAGCAG GCCGAGGCCG TTTTCAACGT TCCTTCTACT	17640
CACCACAAGG TGGTATTTAT ATGACACTCC ATCTTAAACC AAATCTCCCC TATGACAAAT	17700
TACCATCCTA CACACTACTT GTAGCTGGAG CTGTCTACAA AGCCATTAAAG AACCTAACTT	17760
TAATAGATGT CGACATAAAA TGGGTCAATG ATATCTATCT AAACAATCAT AAAATTGGAG	17820
GAATCCTTAC TGAAGCAATG ACCTCTGTAG AAATGGCTT AGTCACAGAT ATCATTTATTG	17880
GAGTAGGTAT CAATTTCACT ATTAAAGACT TCCCTCAGGA ATTAAAAGAA AAAGCTGCCA	17940
GCTTATTTAA AGCTACAGCT CCTATAACAA GGAATGAATT GATCATAGAA ATCTGGCGTG	18000
CTTTCTTCGA AACACCAGCA GAAGAGCTAT TATACCTATA CAAAAACAG TCATTCATTC	18060
TAGGAAAAGA AGTCACTTTC AACTAGAGC AAAAAGACTA CAAGGGACTT GCTAAAGACA	18120
TCTCAGAAAA TGGAAAACTT TTAGTTCAAT GTGATAACGG AAAAGAAATC TGGCTAAATA	18180
GTGGCGAAAT TTCTCTCAAT AGTTGGAAGT AAAATAACAC AATTATAATA TAAACGATAT	18240
AAAAATAACT TCAGATTAGT AATTCAATTA AGTTTACGG ATCTGAAGTT TTATTGGCTC	18300
TAAAAATAAA AAAGAGAGTT ACAGACTCTC ATTAAAACGG AGAATAAGGG ATTCGAACCC	18360
TTGGCCAGT TACCCGACCT AACGATTTAG CAAACCGTCC TCTTCAGCCT CTTGAGTAAT	18420
TCTCCAATTA ATGGGCACGA GTGGACTCGA ACCACCGACC TCACGCTTAT CAGGCGTGCG	18480
CTCTAACCACT CTGAGCTACG CGCCCAAGTT AAAAACTTG GTAATTTGAA CAAAGTTCAA	18540
AGCGGGTGAC GAGAATCGAA CTCGCGACAA CAGCTTGGA GGCTGTAGTT TTACCACTAA	18600
ACTACACCCG CATAAATACT ATCAATAAAA TGGCGCGAGA CGGAATCGAA CCGCCGACAC	18660
ATGGAGCTTC AATCCATTGC TCTACCAACT GAGCTACCGA GCCTTATTGC GGGAGCAGGA	18720

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TTTGAACCTA CGACCTTCGG GTTATGAGCC CGACGAGCTA CCGAGCTGCT CCATCCCGCG	18780
TTAATAATAT AAAAGGAGGA TGTGGGATTC GAACCCACGC ACGCTTTTAC ACGCCTGACG	18840
GTTTTC AAGA CCGTTCCCTT CAGCCGGACT TGGGTAATCC TCCAATATTC AAATGGACCT	18900
TGTAGGACTT GAACCTACGA CCACTCGGTT ATGAGCCGAG AGCTCTAACC AGCTGAGCTA	18960
AAGGTCCGAC AAGATCATT TAGCGGCGAA GGGGATCGAA CCCCCGACCT CCCGGGTATG	19020
AACCGGACGC TCTAGCCAGC TGAGCTACAC CGCCATGAAT CGGGAAGACA GGATTGGAAC	19080
CTGCGACACC TTGGTCCCAA ACCAAGTACT CTACCAAGCT GAGCTACTTC CCGAGTTAAA	19140
TAGAAAAATG CACCCTAGAG GAGTCGAACC TCTAACCGCC TGATTGCTAG TCAGGTACTC	19200
TATCCAGTTG AGCTAAGGT GCTCCATATT ATGCCGAGGA CCGGAATCGA ACCGGTACGA	19260
TCGTACCAA TCGCAGGATT TTAAGTCCTG TCGCTCTGCC AGTTCGCCA CCCCGGCCTC	19320
TCTAAGCGAA CGACGGGATT CGAACCCGCG ACCCCACCT TGGCAAGGTG GTGTTCTACC	19380
ACTGAACCTAC GTTCGCACTG TTTTCTTCTA TCTAAAAATG CCGGCTACAT GACTTGAACA	19440
CGCGACCTC TGATTACAAA TCAGATGCTC TACCAACTGA GCTAAGCCGG CTCATTGTGTT	19500
ATATCTTAAT GCGGGTTAAG GGACTTGAAC CCCACGCGG TTAAGCGCCA GATCCTAAAT	19560
CTGGTGCGTC TGCCAATTCC GCCAAACCCG CATATATGAC CCGTACTGGG CTCGAACCAG	19620
TGACCCATTG ATTAAAAGTC AATTGCTCTA CCAACTGAGC TAACGAGTCT AAAATAACTT	19680
GCGTTACCTT AAACGGTCCG ACGGAATCGA CCCGGTAC	19718

(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4117 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

CCGTGGAAAA GTCTGGATAG TGAATGGTCT TCACACAATG ACCTGAAAGA AGCCTGAGAA	60
TAATTATGGA GAGTAGCATT CTGAGAGGTG TTAGCAGAAC CATATGACAG AGCTGTTTGA	120
AGAGGGAATA TTGAGGAGAA AAATCCTGAG CCTACCAGTT GGAGTTGGAA AGAGCTGACT	180
GTTAGATCAT GGTTTATTAT CCACAACCTG TGGATAACTT TGTGAATAAG AGAAGTTGCT	240
AAAGAAGGAG ATATATAACG ATGAAGAAAA TCAAACCGCA TGGACCGTTA CCAAGTCAGA	300
CTCAGCTAGC TTATCTGGGA GATGAACTAG CAGCTTTTAT CCACTTCGGT CCTAATACCT	360
TTTATGACCA AGAATGGGGG ACTGGACAGG AGGATCCTGA GCGCTTTAAC CCGAGTCAGT	420

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TGGATGCGCG TGACTGGGTT CGTGTGCTCA AGGAAACGGG CTTCAAAAAG TTGATTTTGG	480
TGGTCAAGCA CCACGATGGC TTTGTCTTTT ATCCGACAGC TCACACAGAT TATTCGGTTA	540
AGGTCAGTCC TTGGAGGAGA GGAAAGGGCG ACTTGCTCCT TGAAGTATCC CAAGCTGCCA	600
CAGAGTTTGA TATGGATATG GGGGTCTACC TGTCACCGTG GGATGCCCAT AGTCCCCTCT	660
ATCATGTGGA CCGAGAAGCG GACTACAATG CCTATTATCT GGCTCAGTTG AAGGAAATCT	720
TATCAAATCC TAACTATGGG AATGCTGGTA AGTTCGCTGA GGTTCGGATG GATGGTGCCA	780
GAGGAGAGGG CGCGCAAAAG GTTAATTATG AATTGAAAA ATGGTTTGAA ACCATTCTGT	840
ACCTGCAGGG CGATTGCTTG ATTTTTTCAA CAGAAGGCAC CAGTATCCGC TGGATTGGCA	900
ATGAACGAGG GTATGCAGGT GATCCACTGT GGCAAAAGGT GAATCCTGAT AAAC TAGGAA	960
CAGAAGCAGA GCTGAACTAT CTTCAGCAGC GGGATCCCTC GGGCACGATT TTTTCAATCG	1020
GAGAGGCAGA TGTTTCCATC CGTCCAGGCT GGTTCCTACCA TGAGGATCAG GATCCTAAGT	1080
CTCTCGAGGA GTTGGTCGAA ATCTACTTTC ACTCAGTAGG GCGAGGAACT CCACTCTTGC	1140
TTAATATTCC GCCGAATCAA GCTGGGCTCT TTGATGCAA GGATATTGAA CGACTTTATG	1200
AATTTGCGAC CTATCGCAAT GAGCTCTATA AAGAAGATTT GGCTCTGGGA GCTGAGGTAT	1260
CTGGTCCAGC TCTTCCGCA GACTTTGCTT GTCGCCATTT GACAGACGGC CTTGAGACCA	1320
GCTCTTGGGC AAGCGATGCA GACTTGCCCA TCCAGTTAGA ACTCGACTTA GGTTCCTCTA	1380
AAACTTTTGA TGTAAATTGAG TTAAGAGAAG ATTTGAAGCT AGGGCAACGA ATCGCTGCTT	1440
TTCATGTGCA AGTAGAGGTG GATGGTGTCT GGCAGGAGTT TGGTTCGGGT CATACTGTTG	1500
GTTACAAACG TCTCTTACGA GGAGCAGTTG TTGAGGCACA GAAGATACGT GTAGTCATTA	1560
CAGAATCACA GGCTTGCCTT TTGTTGACCA AGATTTCCTT TTATAAACT CCTGGATTAT	1620
CAAAAAAGA AGTTGTTTCA GAACTAGCAT TTGCAGAAAA AAGCCTAGCT GTGGCAAAGG	1680
GAGAAAATGC CTATTTTACA GTTAAGCGCA GAGAATGTAG TGGTCCTTTA GAAGCTAAGA	1740
TTTCGATTCA ACCGGGGACA GGTGTCCATG GTGTGCGCTA TCAGGATGAG ATTCAAGTCC	1800
TTGCGTTTCA AACTGGTGAG ACTGAAAAAA GTCTGACGCT ACCAACCTTG TATTTGCGAG	1860
GAGATAAAAC CTTGGATTTC TATCTGAACC TAACGGTGGA TGGTCAGCTT GTGGATCAAC	1920
TTCAAGTCCA AGTTTCATAA AAGAAGAACC TTGCGCGAT GCAAAGGTTT TTTTGGTTAT	1980
TAGTGACTTG GTAACCACT GAGGGTGAAA GTTAGTTGTT CAGCTTTTAA GAGGTCTTGG	2040
TGTTGAATAG TTGATACGAG TGTTTTGTCC AGTCGGCATT CTTTGACAAA GTTAAATGCG	2100
TTGTGGTTTT GTTTAGTATG GATATCCAGC CATTTATCTT CTTTAGCGAG GTAGACTCGT	2160

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AGATGGTCAA AGAGAGGGAT TCCGAGGTCA TAGCTTGGTT TTCCTGGACA GGTGGGATAA	2220
AATCCGAGAG CTGACCAGAT GTACCAAGCA GAGAGACTAC CATGTGCTTC ATCTCCAGGA	2280
TAGGCTTCCC AACTTGGGTG AAAAGCTTTC TGACGGAGCG TCTTGATAAG AAGGGCAGTG	2340
TAGTCAGGGT AATCGCTGTA ACGGAAGAGA TAAGGAATGT GGAAACTAGG CTGGTTGGAA	2400
ATGGCTATTT GTCCAAAAGG AGCAGTAGCC ATCTCGCTCA TTTCGTGAAT TTCGTAACCA	2460
TAGCCTGTG TTTCAAAGAG GGGAGCATCT TGACAGGCTT TCAAAGATA GTTGCTAAAG	2520
GTTTCTTTTC CACCCATCAG TTGGATTAAG CCAGGGATGT CGTGGAGAAC GCCTAAAGTA	2580
GCTTGAATGG CAGAGCATTC AGCGTAGTCT CGCCCCAAC TATAAGGAGA GAAGTCAGGG	2640
TGAAAGTTTC CTTGATTGTC TCGTGCTCGC ATGTAACCTG TCTCAGCGTC AAATAGCTGG	2700
CGGTAATTTT GTGAAGCAGC CTTGTAGGTT TCAGCGATTT CTATGTTCTC TAGTTTTTTG	2760
GCACAGCTGG CGATACAAA GTCACTATAG GCATAGTCTA GAGTATGGCT AACACTTTCG	2820
TGTTGGTCCG TAGAGAGGTA ACCTAGTTCT TGGTATTGGG CTAGTCCGTG GCGGCCATTG	2880
ATGCCGAGAG GGTGGGCTTT GCTGGCTGTT TCGAGCATGG CTTGGAAGAG TTCTCCTTCT	2940
AGGTCGGGGG TCATGTCTTT GCAGGCGCTA TCTGCGATAA TACCGTCTAA AAGGTACCT	3000
GGCATCATAC CCCGTTTCATC TGGAGCCAGC CATTTTGGAA GGAAACCAGT ATCGCGGTAG	3060
CTATTGAGGA AACCTTCTAA AAAGCGTTGA TAGTGCTCCG GTATGATAAG GGCAAAGAGG	3120
GGGAAGGTGG TGCGGAAGGT ATCCAGAAA CCATTGTTGC TAAAGAGGAC ACCAGGCTTG	3180
ACAGTACCAG TAGCCAGATC CATGTGGATG GCTTGCCCTG ATTCATTAAT CTCATAAAAA	3240
GTCTGTGGGA AGAGGAAGAG TCTGTAGAGG CAGTGGTCAA AGAAGGTTCC GTCAGCCTCT	3300
CCTGTCTCTA TAATGTCAA ACGATGGAGG AGATTTTCCC AATCCACTTG GGCACCTGAT	3360
TTACAGCTAT CAAATCTTC TTGAGGTAGA TTGATTAGAG CTTGAGAAGG AGAGATGAAA	3420
GAAGTGGCTA GTTGCATCTC GGTTTGACTA CTTGCTAAGT CAATTCGCCA GTCTCCAGCT	3480
TCTTGGCTGA TAGCAAGAAT ATCCGTGTTT ATTTGCAGGG CAGTGAACAT CGTTAGCGAA	3540
TTTTTGTTAG TTTCAGTTT ACCTTCTTGT CGCAGGGCAA GAGTCCGCTT ATCTACTTGC	3600
TCTACTGTCA GTTCATCTGC TGGTGAAGA TAGAGGAGA GGGCTTTGCC TTGCTTTTGA	3660
TTCAAACGAA TAGAAGCACC ATAGCAAGTC GGTGTGAGCT GGGTTTCAAT CTGATAACGC	3720
AGAGAAAAGA GCTTCAAATA GTGAGGCTGG AAGCAAGCTT TATCTATATC ATAAGAAGAC	3780
TGGCGGTGAA AGAGGCTGTC TCCCCCAGT TGACTGGTGA CAGGTGTCAG AAGGAGCCAA	3840
GAGTAGTCCC CAATCCAAGG ACTGGGCTGG TGAGTTAATC GAATCCCCTG AAAGATAGGC	3900
AGATGTGGAT CAAAAACCA AGATCCATCC TGGTCACTGG TCTGGGGCAC AAAGTAATTC	3960

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ATCCCAAAAG GCACGCCTGT GTATGGCAGG GTATTTCCCC GAGAAAAGGC ATGCTTGTTG 4020
 GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGTT TCATAGTCTT TCCTTTAGCT 4080
 GTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG 4117

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2727 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC 60
 CTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAG TGACAGATGA TAATACAAGA 120
 AAAGTTCGTT TATTAGTAGC CTTTTTATAGC ATTGTCATAG GCTACATCCT GAGTTCCTTC 180
 TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG 240
 TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA 300
 GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCCT GTTGGCAGCG ACTATTCTAG 360
 CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA 420
 ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTTGTC 480
 AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCCTA CAAGTATGTC AGCAAGATGC 540
 GCGCCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCGTGT GGGTCATGCC AAGGTATCCA 600
 TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTTGAAA GGTCTGGAAG 660
 CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC 720
 ATGGTGTCTA TATCTATATG GACTTTCCAA GTGTTGGTGC AACGCAGAAC TTGATGATGG 780
 CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TGCCCGTGAG CCGTGAATG 840
 TTGACTTAGC CATTCCTCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA 900
 CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC 960
 GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTC 1020
 GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTTG 1080
 AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAT CTAAAAGCTG 1140
 TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTTACAG 1200

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CCTTGATGAC AGTTGCAAAA GGCGAATCAA CCATGGTGGA GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCCGCATGG GCTTGCATTC TGAGATTATC CGTGATACAG	1320
CTCGTATTGT TGGTGGACAG CCTTTCAGG GAGCAGAAGT TCTTCAACT GACCTTCGTG	1380
CCAGTGCAGC CTTGATTTTG ACAGGTTTGG TAGCACAGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATAGAGGT TACTACGGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTGACCG GATTGAGGCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TAGTCATCAT AGTACTGATT TTAGGTACTC TGGCTCTAGG AATCGGTTTA	1620
ATGGTAGGTT ATGGAATCTT GGGCAAGGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTACA GGAAATTAGG CTGAGAACCC AGCCTTTTTC	1740
TAAAGATAAG GAGAAATATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCGTCGGCA CCTAATAGTC	1860
CCAAAACCAA TCTTAGTCAG AAAAAACAAG CGTCTGAAGC TCCTAGTCAA GCATTGGCAG	1920
AGAGTGCTTT AACAGACGCA GTCAAGAGTC AAATAAAGGG GAGTCTGGAG TGAATGGCT	1980
CAGGTGCTTT TATCGTCAAT GGTAATAAAA CAAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAACA AAGACAGTGG GCAAGGAAAC TGTTCACACC GTAGCTAATG	2100
CCCTCTTGTC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAACTGGG AATGGTTCAA	2160
CTTCTTGGAC TCCTCCAGGT TGGCATCAGG TCAAGAATCT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCAATTG TTAGGCTATG CCTTAATCGG TGGTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAT CAGGCACAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGGACCAAA	2400
ACAAGCGTGT CCGTTACCGT GTAACCCCTT ACTACGCTTC AAACGAGGAT TTAGTTCCTT	2460
CAGCTTCACA GATTGAAGCC AAGTCTTCGG ATGGAGAATT GGAATCAAT GTTCTAGTTC	2520
CCAATGTTCA AAAGGACTT CAACTGGATT ACCGAACTGG AGAAGTAACT GTAACCTAGT	2580
AAAAGATACG CCTACACTCC TATGTCATT ATGGATGTAG GAGTTCTTTT TACTAGTTTA	2640
AGCAGGACTA AGACAGGTAC TAAGACAAAA TAGCAACTTC TAAACTAAC TTCCAGTTT	2700
GGGAGAGAGA TGGAAGTTAC TTTGAGA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 5717 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAAAAATA AAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTITTATTG	120
TTACATCGT ATAAATTGCT TGGACTCTTA TTTTTCATCA TTAACCTAGG TATGATTTTT	180
ATTAATTCAA TTCCTTTTTT TCAGTATGAT AGTGGTATTA TTTTAAGATA CTTGAATTCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTTCTAT ACTGCTTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTTCACGTA AATAGTTATG TTTTTCCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGAAATAG CTATAGAACC TCAAATTTTC CAAGAATTTA TCAACGATCT	540
ATTTAATAGT TGTAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACATAAA ATGAACAAAT TTTAATTTTC GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTCT GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAAACTTAT TGTCGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGSCAAATTC TTTATACAGA GTCGGATGTT GGTAAAGAGA AGATTAAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCAG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAT TGTTCGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAAT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAAAT ATTTCTGGGA TGTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTATAGAA ACACAATTAA TAGTATTGTT CTGGGTATT ATTTTGTCTA	1560
TATATTATGC TTAATACAAT AAAAATATTC AAACATCATT GGAAAATATA GTATGGCTTT	1620

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TTTCATCGTT TGAGATTTTA TTTTGTCTTG TTAATTTTAG AACATTTATT CAGTTACCAG	1680	
TGGATATTTT TATTGGTATG ATAATATTTT TAATGCTGTG GATATTTATT ATGTTAGGTA	1740	
TAGTGTGTCT TAGTTATTAT ATAACTTTAT TATTTAGCAA GGAGGCTTAG TATGTTTAAA	1800	
AAAATAGGTA TAATGAGCAT TTGCATATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860	
CGTATTATCA ATAATATTGA AACAATCTTG CTAACGGTTA TATGCTTAAT GTTATTGTTT	1920	
TTTTTAAGAC GTTTATTTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980	
TAAAGGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT TTGGTGATAA	2040	
AATAGCTTTA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTGT GATTTTGTAGA	2100	
ACCATCTGTT TCTGGAAAGA CCACAACGAT TAATATTCTG ACTGGGCAGT TCCTTGCCGA	2160	
TAAAGGACAA TCTATTATTT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTAAA	2220	
GAGAATTGGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGTCTC TGTATAACAA	2280	
TCTTCTTTT TATAGTAAAT TTTATAATAT TAGTAAATCA CGTGTGATA ATTTGTTAAA	2340	
GCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTATCCA CTGGAATGAG	2400	
GCAACGAATG CTTTGTAGCAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCTGGATGA	2460	
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAATT CATGAGTTAA TTTTGAATT	2520	
GAAAACAGCA GGGACAACGA TTTTCTAAC GACTCATGAT ATGAATGAAG CAACTCTTTT	2580	
ATGTGATTAT GTTGCCTTAT TAAATAAAGG GAAATTAGTT GAGCAAGGAG CTCCTTCTGA	2640	
ACTCATTCAA AGATATAATA AAGATAAAAA GATTAAGGTT ACAGATTATA ATGGGAATCA	2700	
GATAACTTTT GATTTTACAT CACTAGAACA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760	
TTCAATTTCAT TCATGTGAGC CTACTTTAGA AGATATTTT ATCACAATTAA CAGGAGGAAA	2820	
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGCG TTGTCAAATC ATCCTTTCCA	2880	
ATAAGAGTAT TTTATTGCAA GTTTTAGTGC CTTTGTCTT CACATATTTT TATAAATATC	2940	
TTATGGAAAC ACAGGGGAAG GTCAACGATC AACAGGCATT AGTTCTTTTG ATGATGTGTT	3000	
TACCTTTTTC TTTTCTTTG GCTGTTGGAA GTCCTATAAC TATTATCTTG TCTGAAGAAA	3060	
AAGAAAAGTA CAATTTACAA ACTCTTCTGT TGACTGGTGT TAAAGGCTCC GAATACATTT	3120	
TATCAACTAT GTTCTTCCT TTTTGTCTAA CTTTGTGAT TATGGGAAT ACTCCTCTTA	3180	
TTTTAGGAGT TACAATTGTA CATACTTTTA ATTATATTAC AATCGTTCTT CTAACCTCTT	3240	
TATCCATCAT TTTATTCTAT TTATTGATAG GTTTAACCGC GAAGAGCCAA GTAGTAGCTC	3300	
AGGTTATCAG TCTTCCTGCT ATGATTTTAG TTGCTTTCTT ACCGATGCTA TCTGGTTTGG	3360	
ATAAGACAGT TGCGAAGATA ACAGATTATA GTTTTATGGG ACTATTTACT AAGTTTTTCA	3420	

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CAAAATGGGA GGAATTTTCA TGAATAAAAA CTCTAATTCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAACT TTAATTACGA TAACTATTAG GAAAAAGAAA ATTTCTTAAT	3540
TGAGTTATTT TAATGATTAT AAACACAAGT GGAAGGAAA AAATGAACTG ATCTTTTGA	3600
CAGCAATTCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATA TAATTGCAGA AGTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCAACATT TTTAAATCTC CTCTATAAGT GCTTCAAAAA GTGCTTCAAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATTA ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTCGTAATT GTTGCCAAAT CGTTTAAGA AAATACTCAC GAAGAAGTCC	3900
ATTCGCATTC TCATTACTTC CCCTTGCCA AGATGAATAG GCATCCGCAA AATAAACAG	3960
AATTCCTATT TGTTCATTA AAGGGTAACA AGCAAACTCT TTTCTCTGT CCGAAGTGAA	4020
AGTCTTAAAC TATTCTTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTTAA	4140
AGCAGTCCAG AGAGGCAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTTCG	4200
TGGAACCTTG CTGTTGGCAG GTTCCTTTT TCGTGGCTTC TGTGAGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGGAGAA ACCTATGCGA GAACATCGTC CAATCATTGC TCTTGATTTT	4320
CCTAGTTTGG AGGCGGTCAA GGAATTTTFA GCTCTTTTCC CAGCAGAAGA AAGCCTTTAT	4380
CTCAAGGTAG GGTGAGAGCT TTATTACGCA GCGGGGCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGTCTT TTTGGATCTC AAACATCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTTGGT GTCGATATGA CTAATGTCCA TGCGGCTGGT	4560
GGTGTAGAGA TGATGAAGC GCGCGGTGAA GGTCTTGGA GTCAAGCCAA ATTGATCGCT	4620
GTAACCTCAGC TCACATCAAC GTCAGAAGCT CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACTATGCC AAGAAGACAG CTGAAGCTGG CTTGGATGGT	4740
GTGTTTGGCT CGGCTCAGGA AGTACAAGTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGTCTGACAC CAGGATTTCG TCCAGCTGGT GTTGCAAGTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCCTATCA AATCGGCAGT GACTATATCG TAGTGGGACG TCCCATTTACC	4920
CAAGCTGAGG ATCCTGTTGC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAAGAA CTAGATTAGA AAAATAAAG GAGAATACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTTGAAAAT CCAAGCCGTT TACCTCAAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

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ACTCGTACCC TAATTGAAAA TGGTTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAACTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGACTTGC CTTTTGCCTA CATCCGTAGT AAACCAAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAACG	5400
GGTGGTTCAG TTCTTGAAGC TGTAGCAGCA GCCAAGCGAG AAGGAGCAGA TGTAATTGGA	5460
GTGTAGACGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAACTTTGC AGATGCTGGT	5520
GTAAACTTG TGACGCTTTC AAATATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCACTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATTT	5700
TATTTAAAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAAATGAA ATCTTGCAC CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAA TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCGTAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTTCTT AATTGTTGAA CCAATTGCCG GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AAATACTAA TATTTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTTT GAGAGGATCA GAATGAAAAA ACTAGCAACC CTTCTTTTAC TGTCTACTGT	420
AGCCCTAGCT GGGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTGCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTGCG ATTAACTCT TCCCTAACT	660
CGCTCCTCTA GCGGTGAAA ATTTCTCTAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTATCG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

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CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTTCATCAAC CAAACTCTA CAGATACCTC	960
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAATTATT GAAGCCTACA AAGAAGGTGG	1020
AAACCCTAGT CTAGATGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGAAAAAGAC AAGCCAACTA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGAAGACTA CGATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTCGGTACT GTATTCTTT TACTCTCATT CTTAAGTTAA ATTATTAAAA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCCTAT ATTCTTTGAG AGCGCGTTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTCGGCT CGTCCAGCAC TAAACCGTTG TTTTCACGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGGCTT GCTCTCCCC TGATAATACT TGAATCTGGC TTTCAATATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTTGAT TAAGGGCAGG AAAGGCATTG	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCCTTCTA CTTCTGCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCAGC CTCCACTTCC CCAGCGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCAA TAATCGCAAC CTTTGTATTG	1740
CGTTCGAAGG TAAGATTAA AGGCTTAGTA AGAGGACGGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGA AGATAAAGCG CCCTGGTGTA CGAGCTGGTT TGAAATCAA GGATGGTTTT	1860
GGTTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTTCTTCAT AGCATAAACT	2040
TCTTGGAAGT GGTAGTAGTC ACCAGAGTAA CGCGTCAGCT GTTGATTTTC CACATGATAG	2100
ACAATATTAA TAACGTCATT GAGGAATGGA ATATCGTGGC AAATGAGAAC AAAGGCATTG	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTCTTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATAACACCA	2340
AGAGCACGCG TACTTCGTC AATCTTAGCA TCCAAGTAT AGAAATCAGC ACTCTCCAGA	2400
CGGTCTTGAA GTTCTCTAC TTCTTCCATG AGAGCATCAA CATCCGCGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATT GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCACCGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

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GCCGTCACAT ATTTGGACCA CTCAACCTTT CCTTCATCTG GCAGCATTTT ACCAGTCACG	2640
ATACTCATAA AGGTTGATTT TCCTTCACCA TTGGCACC GA CCAGGCCGAT ATGTTCTCCC	2700
TTGAGGAGAC GGAAGGACAC ATCTTCAAAA ATTGCACGGT CACCAAAACC GTGACTCAGA	2760
TTTTTAACCT CTAAAATACT CATTTTAATT CCTTACCTTG TTTTATGTA ATCGTTTATA	2820
AAGGAGCCAA GCCAGATAGC CACCCAAAGT GTTGGTCCAC AAATCATCAA TCTCAAAGAC	2880
GCGATTGAAA TCAAAGAAA AGTCCAAGAT TAATTGCGTA CACTCGATT CCAAGACTCAC	2940
AAGAAAATA AAAAGAAGGA CCTTTTGT TTTCCGAAA TTTGGAAATA GATAAAGGAG	3000
TTGGAATC AGAGGAAAA ACAAGAAGAC ATTGAGGATA TTTGTAAAA AAATCCAACA	3060
TAATTGTCCA ATGTCACTCA CTTCGCCAG TTTCCAGAGA GAATTGAAAG GAGTCAAAAG	3120
AAAAACCAG CGTCCAAGAT GCTGAATACC TGGAGTTCCC ACTCCACGG TAGATTGTTT	3180
TTGAGGAGTA AAGCAAAAC AGACAATGCA AATGCTATAG AAAATGACTC CCCAGACCAA	3240
AATATGATTA TAAGTCTTCT TCATCATTA GGATTACCG CTGCGACTGC CTTCTGGCGG	3300
TCACGTTTCA TTGTGTTAGA GCGCAATTGT CCACAAGCTG CGTCAATATC TGTACCATGC	3360
TCTTGACGAA CCACACAGTT GACCCCTTTT TTCTTAAGCG TATCATAGAA AGCCAACACG	3420
CACTCTTTGG GACTACGGCT ATATTGGTCA TGCTCACTAA CTGGGTTATA AGGAATCAAG	3480
TTTACATAAG ACAATTTCTT GATGTTCTTG AGCAATTCAG TCAATTCCAA GGCTTGTCTT	3540
ACACCGTCGT TGACTTCATT AAGCATGATA TATTCAAAGG TTACACGACG GTTTGTTGTC	3600
TCAATGTAGT ATTCAATAGC AGCAAAGAGT TTTCAATCG GAAAGGCACG GTTAATCTTC	3660
ATGATACTTG AACGAAGTTC ATTGTTAGGT GCGTGAAGAG ACACGGCAAG ATTGACCTGA	3720
ACCCCTTCAT CAGCAAAGTC ACGAATTTTA TGAGCCAAAC CTGAGGTGA AACCGTGATG	3780
TGACGAGCAC CGATAGCCAT TCCTTTATCA TCATTGATAG TACGAAAGAA ATTCAAGACA	3840
TTGTTGTAAT TATCAAAGGG CTCACCGATT CCCATGACAA CGATATGGCT GATGCGTTCA	3900
TCCTGACCAC GCTCATCAA GTATTCTGA ACCAGCATGA TTTGCGCTAC GATTTCACCG	3960
TTATTGAGGT CACGTGCTT CTTAATCAA CCAGAGGCAC AGAAGGTACA ACCGATATTA	4020
CAGCCGACCT GAGTGGTCAC ACAGACAGAT AAACCATAGT GTTGACGCAT GAGTACAGTC	4080
TCAATTAAACA TACCGTCGGG CAATTCAAAG AGATATTTGA CTGTACCATC AGCAGACTCT	4140
TGCACAATAC GTTGTTCAA GGGATTGACC ACAAAGTGGT CATTGAGCTT AGCAATCAA	4200
TCCTTGAAA GGTGGTCAT TTCTTCAAAT GACTGCACAC GTTTACGGTA GAGCCATTCC	4260
CAGATTGAT CTGCACGAA TTCTTTTCT CCCTGCTCCA ATACCCATTC CTGCATGGTT	4320
TGATGTACCA AACTATGAAT TGAGGGTTTC ATTTCTTCT CTTATCTCT ACTCACTCT	4380

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GACGAATGAC AAAATGACGT TGTCCTTGT CGTCTTCTG ACGACGTCTA TTTTCTTAT	4440
CTGCATTGCA CTTTCGTTTA GTTTGAGTCG GTTCTTTCC TTTCTAGAA GGTGTTCTT	4500
CTTCCGTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGTA GTCTTGTAAG CGACTGATTT	4620
TTTCAAGTTT TTCTTCTGTT CGGTCATCCT TGTAAAAACC TCGTAGGCGA AGCTGTTCCG	4680
TGCTCCAGTC CCCCACGATA TAATCAAAC TGGTTAATAC TTCTGAAAA CGCTGATTAA	4740
AAGTCGTCAC ATCAAAGGCA TCCTTGATAT TTTCAACCA GGAAGAAAGCT ATCCCTTCCG	4800
TTTCGACCTT GTCCCGTGT AAATGGAAC CCGACCAGG AAACCTGTTA TAGTTGTATA	4860
ATTCAGGTGC AATTTCTTTT CGCATAGATA TCCTTTTTTC ACGATTACTT AATACTTTAT	4920
TCTACCATAA TTTCTAGCAG TTAGCACGTT TCTCATAAAA ATGAAAAAG TCTGACGATT	4980
TTGTGAGACC AGAATCTTAT AACCTAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA	5040
TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCCAG TTGATTACTG AAAAGAAAGC	5100
TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTCACGTAG TAAGCATGTT CCCAAACGTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGTTTTG CTGTTGAAGT	5220
CACTTCAAGT TTCCCTTCTT TGTTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGAA TTCTTCAAAT GAACCAAATG TTGCATCGAT	5340
TGCTGCTGCC AGTTCTGCTG AAGGAGCTGT TTTCTCGGGA GTCATCAATT CCCAGAAAAG	5400
AGCGTGGTTC AAGTGTCGCG CACCATTGTT GATAAGTCTG TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTCAGGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAGTTG ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC	180

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TTAGTGTTC GTCCTTTATG GGCTATTTAA AGGGCAAGAG CAGTTTGATG ATTTTGTATA	240
AGCATGCCAA TTTAAATAC AAATATGGCA ATCGCAAGTT TTGCTGTAGA GGCTATTATG	300
TAGATACGGT AGGCCGTAAT CAGAAAGTGA TAGCTGAATA TATTCAGAAT CAATTACAAG	360
AAGACAGAGT AGCAGACCAG CTCACGTTAT TCGAGTCAGT AGATCCGTTT ACTGGCGAAA	420
TAAATAAGAG GAAGTAACTA AGGTGCTTTA GCACCTGCTC GGGAAAGTGG TGCCCGAGGA	480
AGCTATTTCG GTGGGCCTTT GGCCCTGGCC GGTAGAAGCG GCTTATAGCC GCAGAACAAA	540
CCACCAGTTC AACTGGTGG TTTTGATTTA AAAAAGTGA TACATAAAAA TAAAAGTCTA	600
TATAAAGGAT GGTAAATTC CTGTTGTCCG ATTTGGACAA TATCCTAAAT AGTTACAATA	660
TATGGTCTAT ACTTTTCTT AGGAGAAAGC TAGATGTACA GACGTTTGAG AGATTGTAGG	720
GAGGATCATG ATCTGCCCA AAAGCAAATA GCTACAATAC TTTCGTTTAC AAATTCAGCT	780
TATGCCAAAA TTGAACGGG TGAGCATGCG TTGACGGCTG ATGTATTGGT TAAACTCTCA	840
GATTCTATG ACGTCAGTAC AGACTATTTA TTGGGATTAA CTGATTTTCC TGATAAAATT	900
CGCTTTAGAA AATAATCTCC TCAATTTTAT AGAGTTTGAA AATGAGTGAG ATTTTATTAT	960
TGCCCTTTGA CAACTGAATA GCCTAAATG GTACTTTCTT CATTTGTGGA GCAAAATTGA	1020
ATGGCTCGCC ATGATAAGAG CGATTTTAAA ATCATCAATA AAATAGAGCG ATACTTTATA	1080
TGCCATGATA CAAATGATAT ACAATGATAC TTCTGACCGT TCAGCCTGCC AACGTAAAG	1140
AGCAGCAAGT GAAATCTTA TGATGACTTC ATCAGTCATG CCACGTTGAA TGTGTGAGTT	1200
TGTTAGATAA ACGCAATTAA TCCTCAAAG GTTCCCGAA CCTTTTGAGT TCTACAGACG	1260
CATCAGTGG AGTGTGTAAG CTTGTTGCTA AAAGCGTAAA AACCTTGGA CGAAAGGAAT	1320
AATAGACTTT CTGCGAAACA AAAATATAAT ACAATAAAC TATGAATGAT GAAGCAAGTA	1380
AACAATTGAG CGATAGCCGT TTCAAGATCC TTGTAGTGT TCAGCGCAGC ACTTTGAAG	1440
AGATGTTAGC TGTGTTAAAA ACAGCTTATC AACGTAAAG CGCAAAGGT GGACGAAAA	1500
GCAAAATTAAG CCTAGACGAT CTCCTTATGG TAACTATTCA ATACATGCGA GAATAGAGCA	1560
CTTATGAACA AATTGCGGCT GATTTTGGCA TTCACGAAAG CAACTTAATC CGTCGGAGTC	1620
AATGGGTGA AGCAACTCTT ATTCAAAATG GTTTTACGAT TTCAAATTCT GCCTTAATTC	1680
TGTAAAAACA GTAAATTCG AAGGATTGTA AGGTAAGAGT TTTTCTCTT CTGAAAAAT	1740
GGTATAATAG CAATCAAAAC TAGAAAATAA AACGGAATTT GGAACAGATT TGTCTGTATC	1800
CTAGTAGAGT GGTGATACTA TGAAGATTAG TAAGAGGCAC TTATTAAATT ATTCCATCTT	1860
GATTCCTTAC TTGCTTTTAT CTATTTTGGG CTTGATTGTG GTCTATTCTA CCACCAGTGC	1920
TATTTTAATT GAAGAAGGCA AGAGCGCCTT GCAGTTGGTT CGAAACCAAG GAATCTTTTG	1980

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GATTGTTAGT TTGATACTGA TTGCCTTAAT TTATAAATG AGACTAGATT TTTTGAGAAA	2040
TGAGCGACTA ATCATTTTAG TTATATTAAT AGAAATGCTT TTATTGTTCT TGGCTCGTTT	2100
TATTGGTATT TCCGTAAACG GGGCATACGG TTGGATTTCG GTTGCAGGAA TAACTATTCA	2160
GCCAGCTGAG TACTTAAAAA TCATTATTAT TTGGTATTTA GCTCACCAGT TCTCCAAACA	2220
GCAAGAAGAA ATAGCTACTT ATGATTTTCA AGTTTGGACT CAAAATCAAT GGCTTCCCCG	2280
TGCTTTTAAT GATTGGCGAT TCGTTCTCCT AGTTCTGATT GGAAGTTTGG GAATTTTCCC	2340
TGATTTAGGA AATGCGACTA TTTTAGTCTT GGTTCCTTG ATTATGTATA CAGTTAGTGG	2400
AATCGCTTAT CGCTGGTTTT CAACCATCTT GCGCTCGTA TCTGCCGCTT CTGTCTTGT	2460
CTTGACCACT ATCAGCCTAA TCGGTGTGA GACCTTTTCA AAAATTCCAG TATTCGGCTA	2520
TGTAGCCAAG CGCTTTAGTG CCTTTTAA TCCTTTGCC GATCGTCTG ATGCAGGTCA	2580
CCAGTTAGCT AATCTTATT TTGCCATGGT CAATGGCGT TGGTTGGTC TAGGTCTGG	2640
AAACTCGATT GAAAAACGAG GTTATTTGCC AGAAGCTCAT ACAGACTTTG TCTTTTCTAT	2700
CGTGATTGAA GAATTTGGCT TTGTGGTGC CAGTCTTATT TTAGCTCTCT TGTTTTTCAT	2760
GATTTTGGCG ATTATCTTGG TCGGTATCCG AGCGGAGAAT CCTTCAATG CCATGGTTGC	2820
ACTCGGTGTC GGAGGGATGA TGTGGTTCA GGTATTTGTC AATATCGGAG GGATTTCCGG	2880
CTTGATTCCA TCTACAGGAG TGACTTTCCC CTTCTTATCC CAGGGTGAA ATAGTCTCT	2940
AGTCTTATCA GTGGCAGTAG CCTTTGTCTT AAATATTGAT GCCAGTGAAA AACCGCTAA	3000
ATTGTACCGA GAATTGGAAA ATCAACCAAT GAACCTTCTG TTGAAGTAGG ATAAAGAAAG	3060
GATAGTTTAT GTCTCTTCAA AAATTAGAAA ATTATAGTAA TAAAAGTGT GTGCAAGAAG	3120
AAGTCTTGAT TCTAACAGAA TTACTGGAAG ATATTACTAA AAATATGCTT GCCCCAGAGA	3180
CCTTTGAAAA AATAATACAG TTGAAAGAAT TATCAACGCA GGAAGATTAT CAAGGTCTAA	3240
ACCGTCTAGT GACTAGCTTA TCAAATGATG AAATGGTCTA TATTTACGC TATTTCTCTA	3300
TCTTGCTCTT TTTGATTAAT ATTTAGAGG ATGTGGATT AGCTTATGAA ATCAATCATC	3360
AAAATAATAT TGATCAGGAC TATTTAGGTA AATTATCTAC AACGATTAAA TTGGTAGCAG	3420
AAAAGGAAAA TGCCGTTGAG ATCCTAGAAC ACTTGAATGT TGTCCCTGTT TTGACAGCCC	3480
ATCCAACACA AGTGCAACGC AAAAGTATGT TGGATTTAAC AAATCATATT CATAGTCTTT	3540
TGCGTAAATA CCGTGATGTT AAGTTGGGT TGATCAATAA AGATAAATGG TACAATGATT	3600
TGCGTCGTTA CATCGAAATT ATCATGCAGA CAGACATGAT TCGTGAGAAA AAATTAAAAG	3660
TGACTAACGA AATCACGAAT GCTATGGAAT ATTATAACAG CTCCTTTTGG AAAGCTGTAC	3720

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CTCATTGAC GACGGAGTAT AAGCGCTTAG CGCAAGCGCA TGGTCTGAAT TAAAAACAGG	3780
CTAAACCAAT CACCATGGGT ATGTGGATAG GTGGTGACCG TGATGGAAAT CCATTTGTTA	3840
CAGCAAAGAC CTTGAAGCAG TCTGCACTCA CTCAGTGTGA AGTCATCATG AACTACTATG	3900
ATAAAAAGAT TTACCAACTT TATCGTGAAT TTTCTCTTTC AACTAGCATT GTCAACGTCA	3960
GCAAGCAAGT CAGAGAAATG GCTCGTCAAT CCAAGGATAA CTCGATTTAC CGCGAAAAAG	4020
AGCTTTACCG TCGTGCCTTG TTTGATATTC AATCAAAAAT TCAGGCAACT AAAACCTATC	4080
TGATTGAGGA TGAAGAAGTT GGGACTCGTT ATGAAACCGC CAATGATTTT TACAAGGATT	4140
TGATTGCCAT TCGAGATTCT CTACTAGAAA ATAAGGGCGA GTCCTTGATT TCAGGTGATT	4200
TTGTGGAATT ATTGCAGGCA GTAGAGATAT TTGGTTTTTA CTTAGCATCA ATTGATATGC	4260
GACAAGACTC TAGCGTCTAT GAAGCCTGTG TGGCAGAACT CTTGAAATCA GCAGGAATTC	4320
ATTCTCGTTA TAGCGAGTTG AGCGAAGAAG AAAAGTGTGA CCTTCTCTTG AAAGAATTAG	4380
AAGAAGATCC CCGAATTCTT TCTGCGACTC ACGCAGAAAA ATCAGAATTA TTAGCAAAAG	4440
AATTAGCTAT TTTTAAGACG GCTCGTGTTC TGAAAGATAA GTTGGGAGAT GATGTCATCC	4500
GTCAGACCAT CATTTACAT GCAACCAGCC TTTCTGATAT GCTAGAATTA GCTATTCTGT	4560
TAAAAGAAGT AGGACTGGTG GATACGAAA GGGCGCGTGT TCAGATTGTT CCCCTTTTGT	4620
AAACAATTGA AGACTTGGAT CATTCAGAGG AAACAATGAG AAAATATCTT TCTCTTAGCC	4680
TTGCCAAAA ATGGATTGAC TCACGAAATA ACTACCAAGA AATCATGCTT GGCTACTCTG	4740
ACAGTAATAA AGATGGCGGT TACTTGTCAT CATGTTGGAC CCTCTACAAG GCTCAACAAC	4800
AATTGACTGC TATTGGAGAT GAATTTGGCG TTAAGGTTAC CTTCTTCCAT GGTCGTGGTG	4860
GTA CTGTCGG TCGTGGTGGT GGGCCAACCT ATGAAGCCAT TACATCTCAA CCGCTCAAGT	4920
CTATCAAGGA TCGTATCCGC TTGACGGAGC ACGGTGAAGT AATTGGGAAT AAATACGGTA	4980
ACAAAGACGC CGCTTACTAT AACCTGAAA TGCTAGTATC GGCAGCTATT AACCGTATGA	5040
TTACTCAGAA GAAGAGCGAT ACCAATACCC CAAATCGTTA TGAAACCATT ATGGATCAAG	5100
TAGTGGACCG TAGTTACGAT ATCTACCGTG ATTTGGTCTT TGGTAATGAG CATTTCTATG	5160
ATTATTTCTT CGAGTCAAGT CCAATCAAGG CTATTTCAAG TTTTAATATT GGTCTCGTC	5220
CAGCCGCTCG TAAGACTATT ACTGAAATCG GTGGTTTGGC TGCCATCCCT TGGGTATTCT	5280
CATGGTCACA GAGTCGTGTT ATGTTCCCTG GATGGTACGG GGTGGTTCA AGCTTCAAGG	5340
AATTTATCAA TAAAAATCCA GAGAAATTTG CTATCTTACG AGATATGTAC CAAAATTGGC	5400
CTTCTTCCA ATCGCTTCTT TCAAATGTTG ATATGGTTTT GTCAAAATCA AATATGAATA	5460
TTGCTTTTGA ATATGCTAAA CTTTGTGAAG ACGAGCAAGT TAAGGCCATC TATGAGACTA	5520

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TTTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGCC TATTGAAGGA CATGACGAAC	5580
TCTTAGCTGA CAATCCATAT CTAAAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA	5640
TTCTCAACTA TATTCAAGTG GAGTTGATTA AACGCCAAGC TCGTGGAGAA TTGTCCAGTG	5700
ATCAAGAACG ATTGATTTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATTTCAG	5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT	5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTTCAG AAAGTAATCA TACAAACTTT	5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG	5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT	6000
TGCGAGACTG AGCGATAGGG AAATTCCTTA TAATTGAGGT GGTACCGCGC ATCGACGTCC	6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT	6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAAGGAAA TAAAAGGAG AAACAGAATG	6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG	6240
ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC	6300
AAGATTGGTG TGCTTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC	6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAAATTGA TTTTATGAAC	6420
TCAGAAGGTG ACCAAAGTAA GGTTCGCACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT	6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGGT TGGCTAGTGC AACAAAAGAC	6540
CTACCGGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAAC TTGGT TAAAGATTG	6600
AAAAAACCCAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT	6660
GAAGTATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAAGTAGC	6720
GAAGACAATT CAAAA	6735

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCGTTGAACG	60
CAGCAAGGCT ATGTACGGTG GAACTTGAT CAACATTGGT TGTATCCCAA CTAAACCTT	120

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GCTAGTTGCT GCTGAAAAGG ACTTGTCTTT TGAAGAAGTC ATTGCTACTA AAAACACGAT	180
CACTGGTCGC CTCACGGTA AAAACTATGC GACTGTTGCT GGTACAGGCG TAGATATCTT	240
TGATGCGGAA GCTCACTTCC TTTCAAATAA AGTCATCGAA ATCCAAGCTG GTGATGAAAA	300
GAAAGAAGTG ACTGCTGAAA CAATCGTCAT CAACACTGGT GCTGTTTCAA ACGTCTTGCC	360
AATCCCTGGA CTTGCTACAA GCAAAAACAT CTTTGAICTA ACAGGTATCC AAAGCTTGGA	420
CAAAATTACCT GAAAAACTTG GAATCCTTGG TGGCGGAAAT ATCGGTCTTG AATTTGCCGG	480
CCTTTACAAC AAACCTTGAA GCAAGGTCAC AGTCCTAGAT GCCTTGATA CATTCCTACC	540
TCGTGCAGAA CCTTCCATCG CAGCTCTTGC TAAACAATAC ATGGAAGAAG ATGGCATTGA	600
ATTGCTTCAA AATATCCATA CTACTGAAAT CAAAAACGAT GGTGACCAAG TGCTTGTCGT	660
AACTGAAGAC GAAACTTACC GTTTCGACGC CCTTCTCTAC GCAACTGGAC GCAAACCAAA	720
TGTAGAACCA CTTCAACTTG AAAATACAGA TATTGAACTA ACTGAACGTG GTGCTATTAA	780
AGTAGACAAA CACTGTCAA CAAACGTTCC TGGTGTCTTT GCAGTTGGAG ATGTCAACGG	840
TGGCCTTCAA TTTACTTACA TTTCACTTGA TGACTTCCGT GTTGTTTACA GCTACCTTGC	900
TGGAGATGGC AGCTATACAC TTGAAGACCG TCTCAATGTG CCAAATACTA TGTTCAACAC	960
ACCTGCACCT TCACAAGTTG GTTGAICTGA AAGCCAAGCA GCTGATTGA AACTTCCATA	1020
CGCTGTTAAG GAAATCCCCG TTGCAGCAAT GCCTCGTGGT CACGTAAATG GAGACCTTCG	1080
CGGTGCCTTC AAAGCTGTTG TCAATACTGA AACAAAAGAA ATTCTTGGAG CAAGCATCTT	1140
CTCAGAAGGT TCTCAAGAAA TCATCAACAT CATCACTGTT GCTATGGACA ACAAGATTCC	1200
TTACACTTAC TTCACAAAAC AAATCTTCAC TCACCCAACC TTGGCTGAGA ACTTGAATGA	1260
CTTGTTTGGC ATTTAAGTTG AGATTTAATC GTATCGAACA GCCCTCTTTG GGCTGTTTTT	1320
ACTTCTGCGG AATCTCAAAT CTGTCTTTCT CCTCTTTTAT GATATAATAG AAACATGAAC	1380
TTAAAACTA CTTTGGGCCT TCTTGCTGGG CGTTCCTCCC ACTTCGTTTT AAGCCCTCTT	1440
GGACGTGGAA GTACGCTCCC AGGGAAAGTC GCCCTTCAAT TTGATAAAGA TATTTTACAA	1500
AACCTAGCTA AGAACTACGA GATTGTGCTT GTCACCTGGAA CAAATGGAAA AACCTGACA	1560
ACTGCCCTCA CTGTCGGCAT TTTAAAAGAG GTTTATGGTC AAGTTCTAAC CAACCCAAGC	1620
GGTGCCAACA TGATTACAGG GATTGCAACA ACCTTCCTAA CAGCCAAATC TTCTAAAAC	1680
GGGAAAAATA TTGCCGTCCT CGAAATTGAC GAAGCCAGTC TATCTCGTAT CTGTGACTAT	1740
ATCCAGCCTA GTCTTTTTGT CATTACTAAT ATCTTCCGTG ACCAGATGGA CCGTTTCGGT	1800
GAAATCTATA CTACCTATAA CATGATATTG GATGCCATTC GGAAAGTTCC AACTGCTACT	1860
GTCTCTCTTA ACGGAGACAG TCCACTTTTC TACAAGCCAA CTATTCCAAA CCCTATAGAG	1920

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TATTTTGGTT TTGACTTGGA AAAGGGACCA GCCCAACTGG CTCACTACAA TACCGAAGGG	1980
ATTCCTGTGC CTGACTGCCA AGGCATCCTC AAATATGAGC ATAATACCTA TGCAAACTTG	2040
GGTGCCATA TCTGTGAAGG TTGTGGATGT AAACGTCCTG ATCTCGACTA TCGTTTGACA	2100
AAACTGGTTG AGTTGACCAA CAATCGCTCT CGCTTTGTCA TAGACGGCCA AGAATACGGT	2160
ATCCAAATCG GCGGGCTCTA TAATATCTAT AACGCCCTAG CTGCTGTGGC CATCGCCCGT	2220
TTCTAGGTG CCGATTGCA ACTCATCAA CAGGATTGT ACAAGAGCG TGCTGTCTTT	2280
GGACGCCAAG AAACCTTCA TATCGGTGAC AAGGAATGTA CCCTTGCTCT GATTAAAAAT	2340
CCAGTCGGTG CAACCCAAGC TATCGAAATG ATCAAACCTAG CACCTTATCC ATTTAGCCTA	2400
TCTGTCTCC TTAATGCCAA CTATGCAGAT GGAATTGACA CTAGCTGGAT CTGGGATGCA	2460
GACTTTGAAC AAATCACTGA CATGGACATT CCTGAAATCA ACGCTGGCGG TGTTCTGTCAT	2520
TCTGAAATCG CTCGTCGCCT CCGAGTGACT GGCTATCCAG CTGAGAAAAT CACTGAAACG	2580
AGTAATCTGG AGCAAGTTCT CAAGACCATT GAGAATCAAG ACTGCAAGCA TGCCTATATT	2640
CTGGCAACTT ATACTGCCAT GCTGGAATTT CGTGAATGC TGGCTAGTCG TCAGATTGTT	2700
AGAAAGGAGA TGAACATAAT GTTTTACTTT CACTTTCCTC AAAAGATGGC AATTACCCCT	2760
ATCAGCTCAA CATTGCCAC CTCTACGGAA ATCTCATGAA TACACGGGG ACAATGGAAA	2820
CATCCTCATG CTCAAGTATG TGGCTGAAAA ACTGGGAGCC CATGTGACCG TTGACATCGT	2880
TTCTCTCCAT GATGACTTTG ATGAAAATCA CTACGACATC GCCTTTTTCG GTGGTGGTCA	2940
AGACTTTGAA CAAAGTATCA TTGCAGACGA CCTACCTGCT AAAAAAGAGA GCATTGACAA	3000
CTACATCCAA AACGACGGTG TAGTTCTGGC TATCTGCGGT GGTTTCCAAC TATTGGGTCA	3060
ATATTATGTT GAAGCTTCTG GAAAACGTAT CGAAGGGCTA GGGGTCATGG GACACTACAC	3120
GCTCAACCAG ACCAATAACC GTTTTATCGG TGACATCAAG ATTCACAATG AAGATTTGCA	3180
TGAAACCTAC TATGGATTTG AAAATCACCA AGGTCGTACC TTCCTCTCTG ATGACCAAAA	3240
ACCGCTGGGA CAGGTTGTCT ATGGAAATGG AAACAACGAA GAAAAGGTCT GTGAAGGGGT	3300
TCATTATAAG AATGTCTTTG GTTCTACTTT CCACGGGCCT ATCCTCTCTC GTAATGCCAA	3360
TCTGGCTTAT CGCCTAGTTA CTAAGGCCCT CAAGAAGAAA TATGGTCAGG ACATCCAACT	3420
CCCTGCCTAT GAGGACATTC TCAGCCAAGA AATCGCTGAA GAGTACAGTG ACGTCAAAAG	3480
CAAGGCTGAC TTTTCTTAAA CAAAGGAAAA TGATATCAAA GAACTCCGTT ATCTGTTCGG	3540
AGTTTTTTGT CTTTTCTTTT ACCCTTCTCC CTTGCATTTT CTCTCATTTT TTGCCAAAAT	3600
AGAGGGGTAG AAAGAAGGTA GCATATGTCT AAATTACAAC AAATCCTAAC ATATCTTGAA	3660

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TCAGAAAAAC TAGACGTGCG TGTCGTATCT GACCCCGTCA CAATCAATTA CCTCACTGGT	3720
TTTACAGTG ATCCCCATGA ACGCCAAATG TTCCTCTTTG TCCTAGCAGA TCAGGAACCT	3780
CTCCTCTTTG TCCCAGCTCT TGAAGTAGAA CGTGCAAGTA GCACCGTTTC CTCCCAGTA	3840
GTGGGCTATG TCGATTCTGA AAATCCATGG CAAAAATCA AACATGCTCT TCCACAACCT	3900
GACITCAAAC GTGTCGCTGT TGAGTTTGAC AATCTCATCT TGACCAAATA CCATGGTTTG	3960
AAAACAGTTT TTGAGACTGC TGAGTTTGAC AACCTCACTC CTCGTATCCA ACGCATGCGC	4020
CTCATCAAAT CAGCTGATGA AGTGCAAAAA ATGATGGTTG CAGGTCTTTA TGCTGACAA	4080
GCTGTTTCATG TTGGTTTGA CAATATTTCT CTTGATAAGA CTGAGACAGA TATCATCGCA	4140
CAATCGACT TTGCCATGAA ACGTGAAGGT TATGAAATGA GCTTTGATAC CATGGTCTTG	4200
ACTGGTGATA ATGCTGCGAA TCCACACGGC ATTCCAGCAG CTAATAAGGT TGAAATGAT	4260
GCTCTTCTCC TCTTTGACCT GGGTGTCTG GTCAATGGCT ATGCGTCAGA TATGACTCGT	4320
ACAGTCGCTG TCGGCAAACC AGACCAATTC AAGAAAGATA TTTACAACCT GACTCTTGAA	4380
GCCCAACAAG CTGCTCTTGA CTTTATCAAG CCAGGTGTGA CTGCTCATGA AGTGGACCGC	4440
GCTGCCCGTG AGGTCATCGA AAAAGCTGGT TATGGTGAGT ACTTCAACCA CCGTCTCGGG	4500
CATGGTATCG GTATGGATGT CCATGAATTC CCATCTATCA TGAAGGAAA CGACATGGTC	4560
ATCGAAGAAG GCATGTGCTT CTCTGTTGAA CCAGGTATCT ATATCCCTGG TAAAGTCGGT	4620
GTTGCTATTG AAGACTGCGG TGTGTTTACC AAGGATGGCT TCAACCTCTT TACAAGCACC	4680
AGCAAAGATT TGCTTTATTT TGATTAACT ATATAGCCCC TATGCTTTCC TTTCAAATA	4740
TCTAGGGGCT ATTTTATGT CATTTTCTG CTATTATGCT AAAGAAATTG GCTGCAATAA	4800
TCTAACCCCTA AGTGTCTGGA ATGATAACGA GGTGCTCTC CGCTTTTATC AAAGACAAGG	4860
GATGAAACCC CAAGAAACAA CAATGGAAAT GATAATTGAT TAAGAAGTCA TCTATCAAAA	4920
GATGTTAGAA AAAGTTCAAT TTCACTAGAA AATGAGGAAA ATCTCCCCAC AATAAACGC	4980
ATAGTATCAG GTATTGTGTA CTGACCCCAA ACAGTTAGAC AATTAATTTA TCCGAAGGAT	5040
TTAGTTCTGT ACTGCACAGG ACTAAGTCCT TTTAGTTTA CCTTAATTCG TTGTTGTTG	5100
TAGTAATCAA TATAGTCTAT AATGACTTGT TCCAATTGGT TAAGTGATTT AAATGTTTTC	5160
TCATAGCCAT AAAACATTTT GGATTTTAAA ATGCCAAAGA AAGATTCCAT CATACCGTTG	5220
TCTTGGCTGT TTCCCTTGCG TGACATAGAT GCTTGAATTC CCTTATTCTC TAGGAACCGA	5280
TGATAAGAAT CGTGTGGTA TTGCCAGCCT TGGTCACTAT GGAGAATCGT ATTCTCGTAG	5340
TGCTTCTCTT TGAATGCCTG TTCCAACATT GTTTGTACTT ATTCTAAATT AGGCGAACAA	5400
GAAAGATTAA AAGCAATAAT TTCGCTGTTA AAGCCATCTA AAAGTGGTGA TAAGTAAAGC	5460

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TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACTT TTCCATTGTT	5520
TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA	5580
TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTCATCAAG	5640
CCTTGAAGTC TTTTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG	5700
CGATAAGCAT AATTTCCCTT GTGTTGATA AAGATGGATT GAATTCAGT TTTAAGCTCT	5760
TGGTCTTTAT CTGTTTGTG TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT	5820
TTAATGGCTT CTAGAAGAAG ATCTAACGAA AACTCAGTCA TTAATTCCTG AACAATTTCT	5880
GTCTTCTTC TTTCTCTTTT TCCTCCTTCA ATCGGAGTTC TCTTAACCTT TTTAGGATGG	5940
CATTCTCCGC TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC	6000
CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA	6060
ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCATTAT TCACCCCAA	6120
TCTAAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTCACC	6180
CAATGGGTGT TTTTACTAG AAAAAAGA GTTCCCTT TATGGTATAA GTGTAGAAAA	6240
AAACACAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA	6300
GTCTTTTAC CAACTATCTT TCGATGGAGG TCATTAAACC CAGTATGGTG GTCTTATCTT	6360
TTTTTCAGGAA CTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC	6420
GAATGAMCAA CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCWTGTCC AGTTCCTCTT	6480
TCAACTGTTA ACAGGTTATG GAACGGAATA TGCTTG	6516

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT	60
TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTTGGGACAT	120
ATCTTTAGCT ATACTGTTG ATACTCTCTC TTTTCACITT CTTTGTAGC AATTTATTC	180
CTGATTAATT TCGTGATCC TGTAATATG GTCATTAATT TGCCATTTT GATTAATACT	240
GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGTCTT CACAAAAGAT	300

782

AGCATTCTCT ATGAATTTT AAACCATGTC CTAGCCTTAA AAAATAAATT TAAAAAATCA	360
TAGGAGTTTA AAATGAAACA ACTAACCCTT GAAGATGCCA AACAAATTGA ATTAGAAATT	420
TTGGATTATA TTGATACTCT CTGTAAAAAG CACAATATCA ACTATATTAT TAACTACGGT	480
ACTCTGATTG GGGCGGTTTC ACATGAGGGC TTTATCCCTT GGGACGACGA TATTGATCTG	540
TCCATGCCTA GAGAAGACTA CCAACGATTT ATTAACATTT TTCAAAAGGA AAAAAGCAAG	600
TATAAGCTCC TATCCTTAGA AACTGATAAG AACTACTTTA ACAACTTTAT CAAGATAACC	660
GACAGTACGA CTAAAAATTAT TGATACTCGA AATACAAAA CCTATGAGTC TGGTATCTTT	720
ATCGATATTT TCCCTATAGA TCGCTTTGAT GATCCTAAGG TCATTGATAC TTGTTATAAA	780
CTGGAAAGCT TCAAACTGCT GTCTTTCAGT AAACATAAAA ATATTGTCTA TAAGGATAGC	840
CTTTTAAAG ATTGGATACG AACAGCCTTC TGGTTACTCC TTCGACCGGT TTCTCCTCGT	900
TATTTTGCAA ATAAATCGA GAAAGAAATT CAAAAATATA GTCGTGAAAA TGGGCAATAT	960
ATGGCTTTTA TCCCTTCAA ATTTAAGGAA AAGGAAGTCT TCCCAAGTGG TACCTTTGAT	1020
AAAACAATCG ATTTACCTTT TGAGAATTTA AGCCTTCCTG CACCTGAAAA ATTTGATACT	1080
ATTTTGACAC AATTTTATGG AGATTATATG ACCCTACCAC CAGAAGAAAA ACGCTTCTAC	1140
AGTCATGAAT TTCACGCTTA TAAATTGGAG GATTAGGATG CAATATTTAG AAAAAAAGA	1200
AATTAAAGAA ATTCAACTAG CCCTGCTGGA CTATATTGAT GAGACTTGTA AGAAACATGA	1260
TATTCCTTAT TTTCTCAGTT ATGGAACCAT GCTTGGAGCC ATCCGCCACA AAGGTATGAT	1320
TCCTTGGGAT GATGATATTG ATATTTCCCT TTATCGTGAG GATTATGAGC GTTTACTGAA	1380
GATTATTGAA GAAGAAAATC ACCCTCGCTA CAAGGTTCTT TCCTACGATA CATCTTCTTG	1440
GTACTTCCAT AATTTGCGAT CGATTTTGGA CACTTCTACT GTTATAGAAG ACCATGTTAA	1500
GTACAAGCGT CATGATACCA GCCTTTTCAT CGATGTCTTC CCAATTGATC GATTACAGA	1560
CTTGAGCATT GTCGACAAGA GCTATAAGTA TGTGGCTCTT CGTCAACTAG CTTATATCAA	1620
AAAATCACGA GCAGTTCACG GTGATAGCAA ACTAAAAGAT TTCTTTAGAT TATGTAGCTG	1680
GTACGCTCTC CGATTTGTCA ATCCTCGCTA CTTTACAAG AAAATTGATC AACTAGTCAA	1740
AAATGCTGTA ACCAACAATC CTCAATATGA AGGAGGAGTT GGGATCGGTA AGGAAGGGAT	1800
GAAAGAAATC TTCCAGTTG ATACCTTTAA AGAACTGATT TTAAGTGAAT TTGAGGGCCG	1860
TATGTTGCCT GTTCCCAAAA AATATGACCA ATTTTAAACC CAGATGTATG GCGATTATAT	1920
GACACCACCA TCAAAAGAAA TGCAAGAGTG GTATAGTCAT AGCATTAAAG CTTATCGCAA	1980
AAACTGATTG AGGGGGATTA TACAACTAC TAAGATAGAG GTTATTCAAA AACATAATTT	2040
TAGTAGAAAA TGAAATACAT ATTTCCACAA TAAAACGCAT CATATCAAGG TTTTGA AAA	2100

ACCTTGATAT GATGCGTTTT ATAATTTTAA AGACTTTTTT CTATAGTAGA TTGAAATAAG	2160
ATGCGAACAA ATCAATTAGA AAATTCAAAT TAATTTATAG AAATATTTTA GTATTCCTGT	2220
GTACTGTTCT AAATTCAGTC TGCTATATCT TATTTTCTA TTAAATCGC TTCTGTAACA	2280
AAGCTACGAC TTTCAAGTAC CTTAAGCATG GCATTAGCTG TATCTAGCGC TGTGAAGAGG	2340
GGCACCCCGT GTTCAATGGC TGAACGACGA ATTTGCTCAC CATCTTCGTC AGCAGTTCGT	2400
TTTGTTCCTA CTGTGTTAAT GATAGCTTGA ATTCTTCCTT TCGGTACAAA ACTTGGGATA	2460
TCCTTATCGT CATCACCAAT CTTACCAACA GGTGGGCTT GCAAGCCATG ACTAGCAAAG	2520
AAGGCTGCTG TCCCTTCTGT CGCAAGGATT CCATAACCAA TGTTTGGAA ACGACGAGCC	2580
AAGTTCAAGG CTTCTTCTTT GGCATCATCA GCGATGGTAA AGACGACATT ACCAAAAGTT	2640
GGCAAGTGTA GATAAGAAGC TTCAAAGGCT TTATAGAGAG CTTTTCCTAA AGTAGCATCA	2700
GAACCCATAA CTTACCTGT TGACTTCATT TCAGGACCGA GCAAGCTGTC TACCTTAGCT	2760
AGTTTGGTAA AGGAGAAGAC AGGTGCCTTG ATATGAACAC GGGTGCTTTC AGGGTAAAGT	2820
CCATTTTGGT AGCCAAGTTC TGATAAACTT TGACCAAGAA TGAGTTTGGT CGCTACTTGA	2880
GCCATAGGAA TATTGGTTAC CTTAGATAGG AATGGAACAG TACGGCTGGC ACGTGGATTG	2940
ACCTCAATAA CGTAGACTTT TTCATCCTTG ATAACAACT GGATGTTTAT CATTCCTAAGG	3000
CAGTGAAGAC CGATTGCTAA GCGTTTGGTG TAGTCTGCGA TGGTCTCCTG AACCTTTTGC	3060
GACAAGGTTT GTGGTGGGTA AACAGCCATT GAGTCACCTG AGTGGACACC AGCAGTTCG	3120
ATATGCTCCA TGATACCAGG AATGAGTACA TTTTACCAT CTGAAATGGC ATCAACTTCG	3180
CACTCTTGGC CAACGATATA AGAGTCGACA AGAACTGGGT GGTCTGGACT AGCCTTAACA	3240
GCAGTTCGCA TGTAAGAACG AAGGTCTTCT TCGTTTTCAA CGATTTCAT GGCACGTCCA	3300
CCAAGTACAT AAGATGGGCG GACAAGAACT GGAAGCCAA TCTTGCGAGC TGCAAGAGCT	3360
GCTTCTTCTT CATTGGTAGC CGTTTGTCTT GGTGGCTGTG GAATATCCAA TTCTTTGAGA	3420
GCTTGCTCGA AGAGGTCACG GTCTTCGGCA CGATCTAGGT CAGCAACCTG TGTACCAAGG	3480
ATGGTCACAC CTGCTTTTGC CAATGGCTCC GCAAGGTTGA TGGCTGTTTG ACCACCGAAC	3540
TGAACGATAA CTCCCTTTGG TTGTTCCTAAG TCAATGACGT TCATAACATC TTCGAATGTC	3600
AATGGCTCAA AGTAAAGCTT ATCTGATACA GAGAAGTCTG TTGAAACGGT CTCTGGGTTT	3660
GAGTTCATGA TGATAGCTTC ATAACCAGCT GCCTGGATAG CCTTAACAGA GTGAACGGTT	3720
GCGTAGTCAA ACTCAACCCC TTGACCGATA CGGATTGGAC CTGAACCTAG GACAAGTACA	3780
GATTCCTTAT CAGATCTGAT AGATTCAATT TCCCAACCAT AGGTTGAATA GAAATATGGC	3840

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GTTTCGGAGT CGAACTCTGC CGCACAAGTG TCTACCATCT TATAAACTGG AACAACTCTTG	3900
TTTTCCAAGC GAAGTTGGCG AACTTTATCA TCAGTCGTTC CCCAGAGTTC AGCAATCTTA	3960
CGGTCTGAAA AACCATTAAAG TTTGGCTGTT TTCAAAACCT CTAAATCTTG TGGATGAGCA	4020
CCCAATTCTT GCTCAATTTT AAAGATATGC AAGAGTTTAT CAAGATAGAA GATATCAATT	4080
TTTGTAAGCT CTGCAATTTT TTCAGGTGTG TAGCCACGAC GAATGGCTTC TGATACGTAG	4140
AAGAGACGGT CATCTTGGGC TTTGACAACC TTTTCAATCA AGGCATCATC AGAACTGCT	4200
GCAAGTTCAG GTATTTTCATT GTGGTGCACC CCAATTTCAA GGGAGCGGCA GGCCTTGAGA	4260
AGAGATTCCT CGATGTTACG ACCGATTGCC ATGACTTCTC CAGTCGCCTT CATTTGTGTA	4320
CCGAGACGGC GTTCACCTT TTTCAAACCTG TCAAATGGGA AACGTGGAAT CTTAGCAACT	4380
ACGTAGTCAA GGGCTGTTTC AAACATGGCA TAGGTTGAAC CTGTAACCTGG GTTTATAACC	4440
TCATCCAAGG TCAAACCTAC TGCAATCTTG GCAGCCAACT TAGCAATCGG ATATCCTGTC	4500
GCTTTAGAAG CAAGGGCTGA CGAACGTGAT ACACGAGGGT TTACTTCGAT AACATAATAC	4560
TTGAAGCTGT TAGGATCAAG AGCTAGCTGA ACATTACATC CACCTTCAAT CTTGAGGGCA	4620
CGAATAATGC TCAAGCTCGC ATCACGAAGC ATTTGGTTTT CATAGTCTGA CATGGTTTGC	4680
GCAGGGGCAA ATACAATGGA ATCCCCTGTG TGAATCCCAA CTGGGTCAA GTTTTCCATG	4740
TTACAAACAA CCAAGGCATT GTCAGCTGAG TCACGCATCA CTTGCTATTC AATTTCTTGT	4800
AAACCGGCAA TCGAACGCTC AATCAAACAT TGGGTAACAG GTGACAATTT CAAACCATT	4860
TCAGTGATTT CACGCAATTC TTTCTCGTTG GCACACATAC CACCACCAGT ACCACCAAGG	4920
GTAAGAGCTG GACGAACGAT GACTGGGTAG CCAATTGTCG CTGCAAAGGC AACTGCTTCT	4980
TCTACTGTGT TAACAATTTT AGATTCTGGA ATGGGTTGTT CAAGCTCTTC CATCAATTGT	5040
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ACGCCAAGCT CGTCTAGGAT ACCATTTTTA GATAATTCCA TGGCCATGTT GAGACCTGTC	5160
TGACCACCGA GTGTTGGTAG CAAGGCATCT GGACCTTCCT TACGAAGAAT ACGTGTCA	5220
AACTCAAGTG TAATCGGTTT AATGTAAACC TTGTCAGCAA TTTCTTGTG CGTGATGATG	5280
GTTGCAGGAT TTGAGTTAAC CAAAACAACC TCATAACCTT CCTCTTTCAA CGACAAGCAA	5340
GCCTGAGTCC CAGCGTAGTC AAACCTAGCA GCCTGACCAA TAATAATCGG ACCAGAACCA	5400
ATCACCATAA TTTTTTGAAT ATCAGTACGT TTAGGCATAT ATAAGATATT AAGGGTGTCA	5460
AGCGGACAAA GCTAAAATAG GAGTTATGAC GAAGAACTGT CAGTCTAGG AATAACTATC	5520
TTTTTAGCAC CGTCCGTAGC CCGTATTCAG TTCAGCAAAT ACGGAGCACC CTTCTCCTTT	5580
CTATTCGTCG CCTCTCAGGG CGACATTAAA TAAGATACAA AGGACGAATA GAAAGCGATT	5640

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GAATTTTAGG AAATCAAGGA AGGATTGACA ATCCAAGTTG GTTCTCTAC ATTCTGAGCT	5700
TTCCGTCCGT GTTCAGTTAC ATAAATTCTC CGACGAGCTT TTA CTCTGTTT TTAGTTTGAT	5760
TGTTTAAAAA CTTCATCAT CTCGATAAAC TCGTCAAATA GGTAGCTAGC GTCGTGTGGC	5820
CCAGGAGCTG CATCTGGGTG GTATTGAACA GAGAAAGCAG GTTGGTATCT GTGGCGCACA	5880
CCTTCCACTG ACTTGTCATT GATTTCTTCG TGGGTAATAA TCAAGTGCTC TGGCAAATCC	5940
TCGCGGCTGA CTGCATAACC ATGGTTCTGG CTGGTGAAGT CTA CTCTGTTT TGTGCGATT	6000
TCACGTACCG CATGGTTGAA TCCACGGTGG CCAAACCTCA TCTTATAGGT CTTAGCCCCG	6060
TTTGCCATTG CAAAGAGTTG GTGTCCATA CAAATACCAA AGATTGGAAT TTTCTCTGT	6120
ACACCGCGAA TCATGTCGAG TGCTTGTGGA ACGTCTTCTG GGTACCTGG ACCATTGAC	6180
AACATAAATC CGTCAGGATT GAGATGGAGA ATTTCTTCAG CGTTGTCGA ATAAGGAACA	6240
ACTGTACCGT TACAGTTGCG TTTAGAAAGT TCACGTAGGA TTGAGTGCTT GAGACCAAAG	6300
TCCACTAGCA CCACGCTCAA ACCAACTCCT GGAGCTGGAT AAGACGTTTT AGTAGAAACC	6360
TGTTTGATAT TGTCTGTGCG TAAAACTGTT GCTTGGAGCT GGTCCGTCAC ATGGTCCATA	6420
CTGTCCCAA CATGGGTCAA GGTGTCACGC ATAGTACCAT GCTTACGGAT AATCTTGTA	6480
AGAGCACGCG TATCAATCC TGAAATCCCT GGAATTTTCT TGGCTTTCAA AAATTCATCC	6540
AAGGTCATTT GGTGCGCCA GTTGCTAGCT CTACGCGCTT CTTCAAAAC AACGACTCCC	6600
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CCGGTCATCC CTGTATTAAA GACGATTTCT CCTGTTACAT CAATATCTGC TCCGAAGGCC	6780
TTGCCTTCAA AACTGTGCC ATCTTCTAAT ACTAGAATTC TTTTGTGTCAT ATTTTCACCT	6840
CTCGTGGACG CTCACTGGCG TCTTTTAAAG TCTTGTGTTT TAGTTGGCGT TTCTACTCGC	6900
TAGTACGGAT TCTAAGATTG CCATTCGAAC AAAGACACCA TTGGTCATTT GTTGGAACAAT	6960
CCGTGATTTT GGTGCTTCAA CCAAGTGGTC TGCTATTTCT ACATCAGCAT TGATTGGAGC	7020
TGGGTGCATG AGGATTGCTG TTTCTTTCAA ACGATCGTAA CGTTCTTGAG TCAAGCCATG	7080
TTGGGCATGG TAGTCTTCTT TTGAAAATAC AGCTCCACTA TCATGGCGTT CGTGTGCAC	7140
ACGGAGAAAC ATCATGACAT CAACCTGATC AATGATTTCA TCAATGGTTA CAACTGTCC	7200
ATAGTCTGCA AACTCTTGAC TTCTCCATTC CTCAGGTCCA GCGAAAAGA GTTCAGCTCC	7260
CAAGCGTTTC AAAATCTGCA TATTGGATTT GGCAACGCGT GAGTGGTCCA AGTCACCTGC	7320
AATAGCAACT TTAAGACCCT CAAAGTGGCC AAATTCCTCA TAAATGGTCA TCAATCAAG	7380

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CAAGCTCTGG	CTAGGGTGT	GGCCCGAACC	ATCTCCACCA
CGTTGGA	GCAATCAATT	CTCTATAGTA	GTCGACCTCT
ATCCACTCCT	AAAGCAGACA	GAGTCAAAAT	GGTGTCTAC
CGAGCTAGTC	TTCACATCAA	AGTCAAGTCG	TTCCAATCCA
AAAGGACTTA	TGTGTCCGTG	TAGAATCCTC	AAAGAAGAGA
TTCATAGGGA	AGCTGGGCTC	CATTTTAAA	CTCAATTCCT
TTGATCGACA	GTGAGGTCTT	CCATGGACAC	CACATGGTTC
CATGGCTACT	CCTTTAACTT	TCTAAGCTTC	TTCAAGTAATC
AAGTCTCTGC	ATCTCTACGA	TGATTTCTTC	AGAACGACTG
GTAATCTGGA	CGGATTGGCA	ATTCTCTATG	TCCACGATCG
ACGCGCAGGA	CGACCATGAC	CGACAATATT	ATCAATAGCA
ATAGAGCACA	TCATCCACCA	AGATAACTTC	GCGGTCTGTC
AGTATCTTCT	CCACTTTTAA	CATCATCAGC	GAAAGGTTTA
AACTGAAAGA	TTTTCTAACT	GCTTCAAACG	TTCTTGGATT
ACGAGTTTAA	ATACCAGCCA	AGACGATCTT	ATTCAAATCT
ATAAGTAATA	CGCGTAATCG	CTCGTTTGAC	GGTCAATTTC
CATGACAAAC	CTCCAAAAG	AAAAGTCTCC	TTAAACAAGG
AGCGAGCCCT	ACTGCACACA	GTATAGACTT	CACCTTCTA
GCCTCACGGG	ACAGGTTTAA	AGGAATATTT	AGTTATCATT
TTAAATCAA	GCAAAAAGTT	TCAATGTAGC	ATCTTACAAA
TGGGTACTGG	TCACACTCTG	GATTTTGTGG	ATGGCAAATG
GGCCTGATGG	GCAGCTAACC	ACTGCTCAGG	CGGCAAGATA
CTCAAGTGGC	GTCGCTGATT	TTTGACAAT	ATCGTGGTGT
AGTATCCACT	GCAAAGGCTG	GAATTCCAAA	TCCTACACTC
GCGACCAACA	CCTGCCAAAC	TCTCCAATTC	TTACCGTGTG
ATCGTCTAGT	AACTGTGTGG	CACATTTTTT	AAGGAATTTA
CAAGCGAGAA	ATATGTGAAG	CAATCTCACT	CTCTGTGCGT
TGGAAAGGCA	ACAAAGAGAC	CTGGTGTGGC	CTTATTTACC
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9000

9060

9120

9180

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ACTGGATAAG ATTCAACTAA CTCAACTGGC TCCATACTGC GACTCGACGC AAGAACAATG	9540
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AACTATGATA AATTCCATTA CGATCATGTC AAACACGTAC TAAGTCTCTA TGGACCTGTT	10200
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GCTTTTGTGTT ATGCACTATG AACATTCTAG AAAGGGAAT CATATGATAA AAATCAATCA	10500
TCTAACCATC ACACAAAACA AAGATTTACG AGATCTTGTA TCTGACCTAA CCATGACCAT	10560
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TAAAATTTTA ATGGGGGAAG CTTTGTCTGA TTCACTATC AAGGGAAACA TCCAATCTGA	10680
CTATCAGTCA CTGGCTACA TTCCTCAAAA AGTCCCTGAG GACCTAAAA AGAAAACCTT	10740
ACACGACTAC TTCTTTTAG ATTCTATTGA TTAGACTAC AGTATCTCT ATCGTTTGGC	10800
GGAGGAATTG CATTTTGATA GCAATCGTTT CGCAAGTGAC CAAGAGATTG GCAATCTATC	10860
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AGTAGAGCAT TTAGACTATG ATAGCTATAG TGAGCAGAGA AAGGCTAATT TTGCCAAACA	11160
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TCTCCTGCTG GATGAACCCA CACGAACTT TCTCCCACT TCTCAACCCC AAATCAGAAA	11880
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CACATCATAC GACCTGCCAT ACTAGAAAGC ATGGTGATAG CACTAGCAAG GGCAACTGCA	12480
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GGCATAGGAA TCTGAGCGAC CAGAGCCATA TCTTCCACTA CATGGTAGAG GTCTGGTGCC	12720

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GCTAAGAATG CCCTCAATCT CCTTTTAGT AAGGTCGAAG ACAATCTCAG TACGCCCTAC	14220
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TTTACAAAAT CAGCTCGCT CTTTATTTC TAGGCTCGGG AAAAAATGAT TTACAAAATC	14400
AGCCTCGCTC TTTTATTCT AGGCTCGGGA AAAAATGATT TACAAAATCA TTTTTTCTG	14460

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CTATACTATC CTAAGCAAAG GTTTTAAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAT CTAAATTTTA AAGAAGTCTT ACTCTGAGGG CCTATTGCTG	14580
TAAATAATG GGCTCTTTT TGATGCCCAA AAGTGAGGTT TATATGAAAC AAGAATCAAC	14640
TGTTGATTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAT AATAGGAGAA AATCTATGTC AGATTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTCAATAC TTCATTGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGAA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGCTCCA AACACAGACT ACGTGATTTA CAACATTCTT CAATTGGCAG	480
GGGTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTGAGCCTT GGTGGAGAAG	600
ACCATATCGT CTTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTTCTTGAAA CTCAATCAGT	720
TGATTGCCGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGG CTTGAATATT GGATCTGTTC GTTCACCATT GACACCAGTG ACTGAAGAAG	900
ATCGTCCAGT TGTAGAAGCG GCTGCTGCCT TGATTCTGTA AACCAAGGAG CGCTTCCTCT	960
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CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGGATAA	1200

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GGGTGAGATT TTCTATGCTG GGCCGCAAAT CCCTAACTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCTTG TGAGATTGAA AATGATGTCA ACTGTGCAGG	1320
TCTTGCTGAG GCAGTATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
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TTCAGCCTGT GAAGTCGGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
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TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGTATTGA	1620
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AGTGGTTATT CTTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTTGC	1800
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AAATAAATTC TCGGTAGCCA GTAAAGCCAC ACTTTTtagc AAAGCGGGTC AAAGCAGCTT	2580
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CTTGCAAAAA ATAGCGAGCG ATTTCTTGTT CTAGGTCTGT CATTTCTTCA AAATGTGAAT	2700
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TCGTCATTTT ACTCTTTATG ACCATTATTG GTCGTTTGTT GTATATGCAG GTTTTGAACA	3060
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CATTTTGTCA TCAAGTCTTG CCATGGATAA AATCAGGACT AAGCGTGTTC TGAATCTGC	6180
TGGTATTGCC CAAGTTCCTT ATGTGGCTAT CGTTGAAGGC GATGATGTGA CTGCTAAAAT	6240
CGCTGAAGTG GAAGAAAAAT TGGCTTATCC AGTCTTCACT AAGCCGTCAA ACATGGGGTC	6300
TAGTGTCGGT ATTTCTAAGT CTGAAAACCA AGAAGAATC CGTCAAGCCT TAAAACTTGC	6360
CTTCCGATAT GACAGCCGTG TCTTGGTTGA GCAAGGAGTG AATGC	6405

(2) INFORMATION FOR SEQ ID NO: 108:

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(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11309 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCCT TAATGGAAAG AAAGCACCAA ATTCGTTTTG AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTGTGCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCAGTCA ACCGATTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTT TCGATGTAGT GGGACACTCA ACGGATGTCG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCGCTCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTGCGA CTTCTGTPTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAAGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

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GATATCCTAG CTGGCGATGA AGAAAAGAGA AAAGAATATC ATAAAATTGT ATCAAGTATC	1560
GAACCTCATGG CCAAGCTTCA TGAAACTTTA GAAACATGC GTGTGAAACG TGGAGCTCTC	1620
AATTTTGATA CCAATGAAGC GAAGATTTTA GTGGATAAAC AAGGTAAGCC TGTTGATATC	1680
GTTCTTCGGC AGCGTGGTAT TGCCGAGCGG ATGATTGAGT CTTTATGTT GATGGCTAAT	1740
GAAACAGTTG CCGAACATTT CAGCAAGTTG GATTTCCTT TTATCTATCG AATTCACGAG	1800
GAGCCTAAGG CTGAAAAGGT TCAGAAGTTT ATTGATTATG CTTGAGTTT TGGCTTGCGC	1860
ATTTATGGAA CTGCCAGTGA GATTAGTCAG GAGGCACTTC AAGACATCAT GCGTGCTGTT	1920
GAGGAGAAAC CTTATGCAGA TGTATTGTCC ATGATGCTTC TCGCTCTAT GCAGCAGGCT	1980
CGTTATTCGG AGCACAATCA CGGCCACTAT GGACTAGCTG CTGACTATTA TACTCACTTT	2040
ACCAGTCCAA TTCGTCGTTA TCCAGACCTT CTTGTTCAAC GTATGATTG GATTACGGC	2100
CGTTCTAAGG AAATAGCAGA GCATTTTGAA CAAGTGATTC CAGAGATTGC GACCCAGTCT	2160
TCCAACCGTG AACGTCGTGC CATAGAAGCT GAGCGTGAAG TCGAAGCCAT GAAAAGGCT	2220
GAGTATATGG AAGAATACGT GGGTGAAGAG TATGATGCAG TTGTATCAAG TATGTGCAAA	2280
TTCGGTCTCT TTGTGCAATT GCCAAACACA GTTGAAGGCT TGATTACAT CACTAATCTG	2340
CCTGAATTTT ATCATTTCAA TGAGCGTGAT TTGACTCTTC GTGAGAAAA ATCAGGTATC	2400
ACTTTCAGG TGGGTCAGCA GATCCGTATC CGTGTGAAA GAGCGGATAA AATGACTGGA	2460
GAGATTGATT TTTCATTCTG ACCTAGTGAG TTTGATGTGA TTGAAAAGG CTTGAAACAG	2520
TCTAGTCGTA GTGGCAGAGG GCGTGATTCA AATCGTCGTT CGGATAAGAA GGAAGACAAG	2580
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AGAGGCAGGG ATGGTCCTGA CTGGAACGTA AATCAAGAGT GTACGAGCTG CTCGAATTAA	2820
TCTCAAGGAT GGCTTTGCTC AAGTGAAAA TGAGAAAGTT TGGCTGAGCA ATGTTTCATAT	2880
CGCGCCTTAC GAAGAGGGCA ATATCTGGAA CCAGGAACCA GAACGTCGTC GTAAACTCCT	2940
GCTCCATAAA AAGCAAATTC AAAAATTGGA ACAAGAGATC AAAGGGACAG GAATGACCTT	3000
AGTTCCCTTT AAGGTCTATA TAAAGATGG CTACGCTAAG CTTCTTTTAG GACTTGCCAA	3060
AGGGAAGCAT GACTATGACA AACGGGAGTC TATCAAACGT CGTGAGCAAA ATCGAGATAT	3120
CGCGCGTGTG ATGAAAGCTG TTAATCAGCG ATAAAAAGAG GAATTGAAAA TGGAAAAATT	3180
AGTTGCCTAT AAACGCATGC CTTTGTGGAA TAAACAAACA ATGCCTGAAG CTGTTGAGCA	3240

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AAAGCACAAT AAAAAAGTTG GGACTTGGGG GAAAATTACT GTCTTGAAGG GAGCTCTCAA	3300
GTTTATTGAA TTGACAGAAG AAGGGGAAGT TCTAGCTGAA CACCTCTTTG AAGCAGGGGC	3360
AGACAATCCA ATGGCCCAAC CTCAAGCCTG GCACCGAGTG GAAGCTGCCA CAGATGATGT	3420
GGAATGGTAC TTGGAATTTT ATTGTAAACC TGAGGATTAT TTTGCTAAAA AATACAATAC	3480
CAATCCTGTT CATTCAGAGG TCCTAGAGGC CATGCAGACA GTGAAACAAG GGAAAGCTTT	3540
GGATTTGGGT TGTGGTCAGG GGCCTAATTC TCTTTTCTA GCCCAGCAAG ATTTTGATGT	3600
GACGGCTGTA GATCAAAATG GACTAGCTCT TGAAATCTTG CAAAGCATTG TGGAGCAGGA	3660
AGATTTGGAC ATGCCTGTTG GCCTTTACGA TATCAATTCA GCTAGCATTG AACAAGAATA	3720
TGATTTTATC GTTTCACAG TTGTTCTCAT GTTCTACAA GCGGACCGCA TTCCAGCTAT	3780
TATTCAAAAT ATGCAGGAGA AAACCAGTGT TGGTGGTTAC AACCTTATCG TTTGTGCCAT	3840
GGACACGGAG GATTATCCTT GCTCGGTAA CTTCCTATTC ACCTTTAAAG AAGGAGAACT	3900
GCGAGACTAT TACAAGGATT GGAATTGGT TAAGTACAAT GAAATCCAG GCCATTTGCA	3960
CCGTCGCGAT GAGAATGGCA ATCGTATTCA ACTACGCTTT GCGACCTTAC TAGCTAAGAA	4020
AATCAAGTAA ACACACATGA AGATTAGGAA TTTTCCTGAT CTTTTTCTT TTTTACGAAT	4080
GATATAGAAA AGGAGGGAAT TCATGTTTGT TGCGAGAGAT GCTAGGGGAG AATTGGTAAA	4140
TGTGTTAGAG GATAAACTTG AGAAGCAAGC ATACACCTGC CCAGCTTGTG GAGGCCAGCT	4200
CCATTTGCGT CAAGGACCAA GTGTACGGAC GCATTTTGCC CATAAATCCT TAAAAGACTG	4260
TGATTTTTC TTTGAAAATG AAAGTCCAGA ACACCTGGCC AATAAGGAAT CCCTCTATCA	4320
CTGGTTGAAA AAAGAGACAA AGGTTCAATT AGAGTACCG CTTTCAGAAC TTAACAGAT	4380
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TTCTATGGT CAAGGTAGTT TATTGGAAAT ATTGCGTCTT CCCTATAAGA GACAAAAAAT	4740
ATCTCATTTT ACAGTTTCTG AGGACAAGGA CATCTGTCGC TATATCCGGC AACAACTTTA	4800
TTATCAAAAT CTCTTTTGA TGAAAGAACA AGCAGAAGCC TATCAAAAGG GAGAAAATAT	4860
CCTGACTTAT GGAATGAAAG AATGGTATCC ACAAATTCGA CCAATAGTGG GCAAATTTT	4920
CCAGATTGAA CAAGACTTGA CTAGCTATTA TCAGCACTTT TATACCTATT ACCAAAAAAA	4980
TCCTCAAAAT GATTGGCAAA AGCTTTATCC ACCAGCCTTT TATCAGCAAT ATTTCTTGAA	5040

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AAATATGGTA GAATAGAAAG GATGGAGGAA TCTAATGGTA TTACAAAGAA ATGAAATAAA	5100
TGAAAAAGAT ACATGGGATC TATCAACGAT CTACCCAACCT GACCAGGCTT GGAAGAAGC	5160
CTTAAAAGAT TTAACAGAAC AATTGGAGAC AGTAGCCCAG TATGAAGGCC ATCTCTTGGA	5220
TAGTGCGGAT AACCTACTAG AAATCACTGA ATTTTCTCTT GAAATGGAAC GCCAGATAGA	5280
GAAGCTTTAC GCTTATGCTC ATATGAAGAA TGACCAGGAT ACACGTGAAG CTAAGTATCA	5340
AGAGTACTAT GCCAAGGCCA TGACACTCTA CAGCCAGTTA GACCAAGCCT TTTCATTCTA	5400
TGAGCCTGAA TTTATGGAGA TTAGCGAAAA GCAGTATGCT GACTTTTGTAG AAGCTCAACC	5460
AAAGCTGCAG GTTTATCAAC ACTATTTTGA CAAGCTTTTG CAAGGCAAGG ATCACGTTCT	5520
TTCAACAAGT GAAGAAGAAT TATTGGCTGG AGCTGGAGAA ATCTTTGGTT CAGCAAGTGA	5580
AACCTTCGCT ATCTTGACA ATGCGGATAT TGTGTTCCCT TATGTCCTAG ACGATGATGG	5640
TAAAGAAGTT CAGCTATCTC ATGGGACTTA CACACGTTTG ATGGAGTCTA AAAAACGTGA	5700
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AAAAATCTTG GGGATTTCAG ATCTCAAGAT GTACGATGTC TACACACCGC TTTCATCTGT	6000
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GGGTGAGGAT TACTTGAGCC GTGTTAAACG TGCCTTCAGC GAGCGTTGGA TTGATGTTTA	6120
CGAAAATCAA GGCAAGCGTT CAGGTGCCTA CTCTGGTGGT TCTTATGATA CCAATGCCTT	6180
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TCACAGTATG CATTCAAGCT ATACTCGTGA AACTCAGCCT TATGTTTACG GGGATTACTC	6300
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GGAAGAAGTG GAAGACGACG CAACACGCTT TGCTATTCTC AATAACTTCC TAGATGGTTT	6420
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CTCAGCCTTG GCTGAAAAAA TTGTCCATGG TAGTCAAGAA GACCGTGACC GCTATATCGA	6720
CTACCTCAAG GCAGGTAAGT CGGACTATCC ACTTAATGTC ATGAGAAAAG CTGGTGTGA	6780

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TATGGAGAAG GAAGACTACC TCAACGATGC CTTTGCAGTC TTTGAACGCC GTTTAAATGA	6840
GTTTGAAGCC CTTGTTGAAA AATTAGGATT GGCATAAAAT GGTGAATCG TATAGTAAGA	6900
ATGCTAACCA TAACATGCGT CGTCTGTCG TCAAAGAAGA AATTGTAGAC TTGATGCGTC	6960
AGCGTCAAAA GCAGGTCACA GGTTCCTTGA AAGAATTGGA AGACTTTGCC CGCAAGGAAA	7020
ATATTCCTAT TATTCCTCAT GAAACGGTTG CTTATTTCCG TTTTCTTATG GAAACCATGC	7080
AGCCTAAAAA TATTCCTGAA ATTGGGACGG CTATCGGTTT TTCAGCTCTC TTGATGGCTG	7140
AACATGCGCC AAATGCTAAG ATTACAATA TTGATCGTAA TCCAGAAATG ATTGGTTTGT	7200
CCAAGGAAAA TTTTGCCAG TTTGACAGTC GCAAGCAAAT CACTCTCCTA GAGGAGATG	7260
CGGTGGATGT CTTATCTACA CTGACAGAGT CTTATGATTT CGTCTTTATG GATTCTGCCA	7320
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TTGTCTTGA TGATATTTT CAAGTGCTG ATGTTGCCAA GGATATTATG GAAGTCCGTC	7440
GTGGTCAGCG AACCATTAT CGAGGCCTTC AAAAATTATT TGATGCAACC TTAGACAATC	7500
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TAGCAGATGT TCAACTGTCT GAAAGCGAAT GATTTTCAGA AAAATTTAAG AAAAAATAGT	7620
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GTGCCATCAC ACTATTATCA GTAGCAACTT TAGCAGCTTG TTCGAAAGGG TCAGAAGGTG	7740
CAGACCTTAT CAGCATGAAA GGGGATGTCA TTACAGAACA TCAATTTTAT GAGCAAGTGA	7800
AAAGCAACCC TTCAGCCCAA CAAGTCTTGT TAAATATGAC CATCCAAAA GTTTTGTAAA	7860
AACAATATGG CTCAGAGCTT GATGATAAAG AGGTTGATGA TACTATTGCC GAAGAAAAA	7920
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GTAAAGCTCA AATTCGTACA AGTAAATTAG TTGAGTTGGC AGTTAAGAAG GTAGCAGAAG	8040
CTGAATTGAC AGATGAAGCC TATAAGAAAG CCTTTGATGA GTACACTCCA GATGTAACGG	8100
CTCAAAATCAT CCGTCTTAAT AATGAAGATA AGGCCAAAGA AGTTCTCGAA AAAGCCAAGG	8160
CAGAAGGTGC TGATTTTGCT CAATTAGCCA AAGATAATTC AACTGATGAA AAAACAAAAG	8220
AAAATGGTGG AGAAATTACC TTTGATTCTG CTTCAACAGA AGTACCTGAG CAAGTCAAAA	8280
AAGCCGCTTT CGCTTTAGAT GTGGATGGTG TTTCTGATGT GATTACAGCA ACTGGCACAC	8340
AAGCCTACAG TAGCCAATAT TACATTGTAA AACTCACTAA GAAACAGAA AAATCATCTA	8400
ATATTGATGA CTACAAAGAA AAATTAAAA CTGTTATCTT GACTCAAAAA CAAATGATT	8460
CAACATTTGT TCAAAGCATT ATCGGAAAAG AATTGCAAGC AGCCAATATC AAGGTTAAGG	8520
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TTTAGTTTTA TCTTAATTCT CTTATTGTTG TAATAATCAA TATAGTCTAT AATGGCTCGT	8820
TCCAATTGAT TAAGTGATT AAATGTTTTC TCATAGCCAT AAAACATTTC GGATTTTAAA	8880
ATGCCAAAGA AAGATTCCAT CCTACCGTTG TCTTGGCTGT TGCCCTTACG TGACATGGAT	8940
GCTTGAATTC CCTTACTCTC TAGGAAGCGA TGATAAGAAT CGTGTTGATA TTGCCAGCCT	9000
TGGTCACTAT GGAGAATCGT ATTCTCGTAG TGCTTCTCTT TGAATGCCTG TTCCAACATT	9060
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AAGTTAATTT CATAATAAAA ACACCCCAA AGTTAGATTT TTTCTGTCTA ACTTTTGGGG	9240
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ATGTGAAGCT GACGTGGTTT GAATAGATTT TAGAAGAGTA TGAGTCTGGA AGTTTAAATG	9480
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TTGGCAAGTT GCAATACCTT TTTACGAGGC TCTGTTGTCT TATTTTGTGTT TCAACTGACT	9780
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ACTGGCAGTA AGATTGGCGC CGTGTCGGAC AATTAGAATA CGTTCAGCTG GACTATCTTT	10020
TAATGATTTG ATAAATTGGA TGGTCCGTTG AGTTGTACTA TAGAGGGATT CGGCTCCGAA	10080
CATTCGAGTG TCRAATTGAG CAAGATTGGA ACGAAAAGCC TGGATTGTGTT GCGGGTAAAT	10140
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AGGAACGATT TCTAAAGAAC AGGGGGTATA GAGTTGACTT TGGATAATCT CAGCAGATTT	10260
GACCGCTCGA GGTAAATCAC TTGAATAAAT CTGATCAAAA GGAATTCCT TGAGATACTG	10320

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ACCAAGTCGT TTTAGGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
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TACTTGATGT CCTCCAAAT ATCTACAAAG TCTGCCTTTA CAAAGCTAGC CAAGTCTTGT	10500
GGCGCGACGA TAATGCTGTG TCCGACTTCG CCTGCAGAGA CAATCATTG ATCCAAATCT	10560
AGAGCAATTT TATCGATAAA AATGGGATAA TTGTGTTTCT GACGAATTCC GACAGGATTA	10620
TTGGCTCCAT GAATGTAACC AGTTGTTTTT TCTAAGTCCT TTTGTGGAAT CATGCTCACT	10680
TTTTTATTGC CAGAAATTTT AGCTAGTTTC TTTTCAGACA AGTGCTGAGT GATAGGGACA	10740
ATTCCGATAA TCGGTCCGGT CTTGTCTCCC AAAAGCGCCA AGGTTTGTAA AATCTGATCT	10800
CGTTCATAAC CTTGAGGAAG CTCTCCTTCT AGGCAATTGA TTTGAATCCC CTGATGAGGG	10860
ATAGCTGCTT TAGATAGGAT TTGTTCCACC AATGTTTTTT TGATTTTAAC TTTTTTGGC	10920
ATTATTTATA TTTATCTCTC AATTGACTCA TCCAAATACC AAGCCAGATT CCCAGCGCAA	10980
AGAAGAAGGC GATGATGACA TAACCGACAA GTGAAAGTCC TGTGTATTGG ATACTTTCAG	11040
CGTTTCCTGC ATTTGGAATT AAGATCAAAA GGTACTTGA TAGGACGATA CCGATGATGA	11100
AATGATAGAC GAACTGTTTA CGGAGTTCTT CTAGTTCTCC GTCGGTCCAA GCGTAGGCCA	11160
CTTCTTCTTT CTTGCCTTTA CCTTTGGACA TCTTGTAAG AGGTGGGAGG GCAATATAGA	11220
CATGACCTGC CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTCGGTA TCCGCATCG	11309

(2) INFORMATION FOR SEQ ID NO: 109:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5548 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CCATAGTCTA ACAAGTCTTT GTAAAGGTTT ATCCCTGATT CATGTAAAGA TTGTGTAAAG	60
AATCAAAAAA AGCCACTTTT GAAAAATGGC TGCTCCTAAA AATAGCTTTA AAAATTATTA	120
GTCTGTGCG AAAGATTGGT TAGGAAGAAA AATCGTGAAG CAACTGCCTC TGCCAAGCTG	180
ACTCGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAAGT CCACCAGTTT GTCTGCTTCG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTTCGTTT ACCTTTTGGG TCTTGACCTC AATTTTCCCT CCTTGTTTCTG TGTAAACGGAT	420

801

GGCATTGGAT AAAAGATTGA GTAAGATTG GGAAAGTAAT TGACTATCTG ATACGAGGGT	480
GACATCATCT GGCACCTGCA CCTTTAGCTG TAAATCCTTC TTCTTGAGCT GAGGTGCAA	540
GCTTTGAGTC AAATCCTGTA CAAATCTGC CAAAGAAAGG GTCGTCCATT GTATAGGCAT	600
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TTTGTAATA ATGTCTAGAA AGTCATCCTT GAGCGCTTCT TCTTCAGCTG ACATCCCCTT	720
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TGAGACAAAG GCTAAATTTA ACTTTTCATA AGTTCTAATC GTTGTTAAAT CATATAGCAA	840
GACGAGCACA GCTTCCACAG ATTGGGTGGG GCTAAAAACG GGAACGCTG TCACCTCTAA	900
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GGCTTGGTGA ACTAAATTC GAATATCCAT CCGTTTGAGG TCATCAAGTG AACTTATGTC	1020
GCCGTCCACA TCGGAAAAT AATGAGGCAG AGAGCGACTG GATAATAACA TCTGACCTTG	1080
AGCGGAAACT AAAAACGTCC CCATGGTTAG GTGCGACAGA AGAACCTCCA TTGTTTCGGC	1140
TAGATCCTTG TATTGCTGAT CCTGTTGGGA GACTTTGGTT TTTAGGCCAG ACACATACTG	1200
AGCCAAAGAC TTTAAGTCTT CTGCCCCTT TTCTAAAAG TATTCACTAC TGGTCAAGAG	1260
AGGTTGGTGC AAGGTCTCAA AAGCAACTTC CCATTTCCAA AGGCAAAAGA GCCAGTAGCC	1320
ACCTAGTCCC AAAGAAAGGG CTAGAAGAAA GAGACCGATG CCTTTACTGA TCCAAGTTAA	1380
TGCCATCCCT GCAATCAGAA TGAGGCTAAC ACTTAGATTG ACTAGCCAAA ATTGAAGTA	1440
GCGTTTCATC TATAACTCCT TGAACCTATA ACCATAACCC CGAATGGTTC GAATAAATTG	1500
AGGGGCTTTA GGATTGTCTT CAATTTTTTC CCTCAACTTA CCAATATGAA CGTCCACCAA	1560
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TAGCCAAGAA TCGTCAGCGA TATTATCTGA ATCATCTCCT TCTTGTTCTC CTTTAGTTCC	1800
CCTGAGGACA GCCTTGACAC GCGCCAGCAA TTCTCTAGGG CTAAAAGGCT TGGTCAGGTA	1860
GTCATCAGCC CCTAATTCCA AGGCCAAAAC CTTATCAAAT TCATCACTTT TCGCAGAAAC	1920
CATCATAATT GGAGTTTGA CGCCTTTGGC TCTCAGCCGC TTACAAACTT CCATGCCATC	1980
TAATTGTGGT AACATGATAT CAAGCAAGAT AAAATCAAAG GGTCTGTTT CTGCCAAAGC	2040
TAAGGCCTTC CGTCCATTG TCACCAATTG AGTAGAAAAG CCTTCCTTAC TTAAATGGTA	2100
GTCAAGCAAT TTCAGAATGT GTTCTTCATC ATCCAATAAT AAGACTTGTT TTGTCATCTA	2160

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TTATCTCCTA TTGGTAACAT TATAACACAA TTATCAGAAA TCCTAACATT GCTAAATCAG	2220
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GGATAGGTCG CCAGTAGATC TACCCTTTCA AATAATTCAA AATCCTCAA TTCAAAACCA	2340
GGAGCAACAA GACAAGAAAC CAGAGCATCA TCCTTATCAA CTGTTGATCC CCAAATAGTG	2400
CCCTTAGGAA CACAGTAGTG AAGTTGTTGC CCTTTGGATA TGTCCAGGCC TAAAGTGACT	2460
GCTTCGTAGT GACCATCTGC TGTAAATCATG TGAACAGTAA GTGGGGATCC TGCATGAAAA	2520
TACCAGATTT CATCTGCTGT CAATCGGTGA AAATGTGAAG GATTCGTTTC TTCTAATAAG	2580
AAATAAATAC TGGTATAAAG CGCCCTTCCC TTACCAGCAA GTTTATAGT GTCTGAAGCT	2640
TTTTTTGTTT GTCTAAAATA GCCACCTTCA ATATGGGGAG CTAACCTCTAG AGTTCTTATC	2700
AAGTCTTCTT TATCCGTCGG AGCCAATGGG TTGAAGTAAC TCTTGTTCAA AGTGGTTTTA	2760
CGATTTCAAG AACTCCTCTC AGTTCTGAGG ACACGGTAAT GATTGATGCG ACGGAAGTAC	2820
AAATCAATCG CCTAAAAA AGAATTAGCG AATGATTCTG GTAAAAAAA TGCCACGCTA	2880
TGAAGGCTCA AGCGATTGTC ACAAGTCAAG GGAGAATTGT TTCTTTGGAT ATCGCTGTGA	2940
ACTATTGTCA TGATATGAAG TTGTTCAAAA TGAGTCGCAG AAATATCGGA CAAGCTGGTA	3000
AAATCTTGGC TGACAGTGGT TATCAAGGGC TCATGAAGAT ATATCTCAA GCACAACTC	3060
CACGTAAATC CAGCAAACTC AAGCCACTAA CAGTTGAAGA TAAAGCCTAT AACCATGCCG	3120
TATCCAAGGA GAGAAGCAAG GTTGAGAACA TCTTTGCCAA AGTAAAAACG TTTAAATGA	3180
TTTCAACAAC CTATCGAAAT CATCGTAAAC ACTTCGGATT ACGAATGAAT TTGATTGCTG	3240
GCATTATCAA TCATGAACTA GGATTCTAGT TTTGCAGGAA GTCTATTATT TGGTTAGGTG	3300
AATTAGTGAA GCGTTTAGGC AAGTGTCTCT GGTTACGACG TCATGGACTC TAAATCGATT	3360
ATATTTAGGG GTCATGACTA GTGAAGCAGT TAGCTAGTTC GCATATAAGC GGCTAGCGTC	3420
TAACAATTAG GAACTTTAGT TCCAATAACT TTAAGATTAC GACGTTTTAG GACATAAATC	3480
GATCATATTT ATGTCCTAAA ACTAGTGAAG CGCCTAGCCA AAGTCCGAAT AGGATTGGC	3540
GTTAGTTACT TAGATTGCTT TGCAATCAAG TAACTTTGGC GATTTACATC TTCTCTGGCG	3600
CTTCTACTCC AAGCAAGCGA AGGGCTTCTT TGAGAACGAC TGCGGTTGCG TAGCTGAGGG	3660
CTAGACGGCT GTCGCGTTCT GGGCTTTCAT CCAAGATACG TGTATGTGCA TAGTATTTGT	3720
TAAAGGATTG AGCCAGGCTA ATTGCAAATT TAGCAATGAT AGAAGGTTCA AAGTTATCTG	3780
CCGCACGGTT GATAATACGT GGAAGTCTT GAATGAGTTT AATGATTTCC CAGCTTTCAG	3840
TATCATTCOA GCTATAGTTG CCAGCTGTTT CTGGTTTGAA ATCGGCTTTG CGTAAGATAG	3900
ATTGGATACG AGCGTAGGCA TATTGAACGT AAGGTCCAGT TTCACCCTCG AAGGATACCA	3960

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TAGCCTCTAG GTCGAAGTCG TATCCATTG TACGGTCGGT TTTGAGGTCA TAGAATTAA	4020
TGGCTCCAAT CCCAACAGCA TGTGCTACTT GGTCTTTGTT TTCTAGTTCA GGATTTTATG	4080
CCTCGATTG GACCTTGSCA CGGCTAACAG CCTCTGCAAC AGTAGGCTCT AGCAAGATGA	4140
CATTCCCTTT ACGAGTAGAG AGTTTCTTCC CTTCTTTTGT AACCAAACCA AAAGGAACGT	4200
GAGTAATGTC GTCACCTCCAG TCGTAGCCCA TCTCTTGCAA GACAGCTTTG AGCTGTTTAA	4260
AGTGGGCAGA TTGTTCTTGA CCAACGACAT AGATAGATTT AGCAAATTGG TATTGTTTTT	4320
TACGGTAGAG GGCTGCAGCC AAGTCACGTG TGATATAGAG AGTTGCACCA TCAGACTTCT	4380
TGATGAGGGC TGGATGTTCA ATTCCATATT TCTCAAGATT CACAACCTGG GCACCTTCTG	4440
ATTCAAGAAG TAGTCCTTTT TCAGAAAGAA TGTCTACAAC TGCATCCATC TTATCATTGT	4500
AGAAGGCTTC TCCGTTATAG CTGTCAAATT CAACCTTCAA TTCATTGTAA AGGCGGTTAA	4560
ATTCCACTAA ACTTTCATCG CGGAACCATT GCCAAAGAGC GAGAGCTTCC TCATCTCCAT	4620
TTTCAAGTTT ACGGAACCAT TCGCGCGCTT CTTTCATCAA GCTAGGGTCA TTTTCAGCTT	4680
CAGCGTTGAT GCGGACATAG AGTTTAAGGA GTTCATCGAT TGGATGAGCT TTTACAGCTT	4740
CTTCGTCGCC CCATTTTTTG TAGGCAACAA TCAACATCCC AAATTGTTTA CCCCAGTCTC	4800
CCAAATGGTT GACCTTGACC GTTTGATAAC CGATTTTTTG GAAAATATGT GACAAGCTAT	4860
CTCCGATAAC AGTTGAACGC AGGTGGCCAA TAGAAAATGG TTTAGCGATA TTCGGACTAG	4920
ACATGTCGAT AACACATTT TCTTGTTTAC CAATATTTTG GTCAGCATAG TGTTCTTTT	4980
CAGTGTAAC AGCTTGCAAT ACTTGAGCAG AAATGGCAGA TTTATCAAGG AAAAAGTTAA	5040
CGTAAGGTCC TGTGCGACA ACTTTTTCOA AGGCTTGGCT GTTCATTTT TCAGCCAGTT	5100
CAGCCGCAAT CATTTGTGGT GCTTTACGTT CGACTTTTGC AAGAGAAAAA GCAGGGAAAG	5160
CAATGTCTCC CATTTCTGAG TTTTATAGGG TTCCAGTAA CTTTAAAATA GCCTCTTGGT	5220
CCAGGCTATC AATGATGCTA GATAATTGCG TAGCAATCAA TTCTTTTGTA TTCATTAAGA	5280
GCTCCTTTT GGACTTTTCT ACTATTTTAT CACAATTTTA AAGAAAGAAG AAAAAATTTT	5340
TGAAATCTCC TGTTTTTTTG GTATAATATG GTTATAAATA TAGTTATAAA TATGCACGCA	5400
AGAGGATTT ATGAGAAAAA GAGATCGTCA TCAGTTAATA AAAAAATGA TTAAGGAGGA	5460
GAAATTAAGT ACACAAAAAG AAATTCAGA TCGGTTGGAG GCGCACAATG TTTGTGTGAC	5520
GCAGACAACC TTGTCTCGTG ATTTGCGG	5548

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3132 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG TCTTAGCAGA CACATCTAGC TCTGAAGATG CTTTAAACAT CTCTGATAAA	60
GAAAAAGTAG CAGAAAATAA AGAGAAACAT GAAAATATCC ATAGTGCTAT GGAAACTTCA	120
CAGGATTTTA AAGAGAAGAA AACAGCAGTC ATTAAGGAAA AAGAAGTTGT TAGTAAAAAT	180
CCTGTGATAG ACAATAACAC TAGCAATGAA GAAGCAAAAA TCAAAGAAGA AAATTCCAAT	240
AAATCCCAAG GAGATTATAC GGACTCATTT GTGAATAAAA ACACAGAAAA TCCCAAAAAA	300
GAAGATAAAG TTGTCTATAT TGCTGAATTT AAAGATAAAG AATCTGGAGA AAAAGCAATC	360
AAGGAACTAT CCAGTCTTAA GAATACAAAA GTTTTATATA CTTATGATAG AATTTTAAAC	420
GGTAGTGCCA TAGAAACAAC TCCAGATAAC TTGGACAAAA TTAAACAAAT AGAAGGTATT	480
TCATCGGTTG AAAGGGCACA AAAAGTCCAA CCCATGATGA ATCATGCCAG AAAGGAAATT	540
GGAGTTGAGG AAGCTATTGA TTACCTAAAG TCTATCAATG CTCGGTTTGG GAAAAATTTT	600
GATGGTAGAG GTATGGTCAT TTCAAATATC GATACTGGAA CAGATTATAG ACATAAGGCT	660
ATGAGAATCG ATGATGATGC CAAAGCCTCA ATGAGATTTA AAAAAGAAGA CTTAAAAGGC	720
ACTGATAAAA ATTATTGGTT GACTGATAAA ATCCCTCATG CGTTCAATTA TTATAATGGT	780
GGCAAATCA CTGTAGAAAA ATATGATGAT GGAAGGGATT ATTTTGACCC ACATGGGATG	840
CATATTGCAG GGATTCTTGC TGGAAATGAT ACTGAACAAG ACATCAAAAA CTTTAACGGC	900
ATAGATGGAA TTGCACCTAA TGCACAAATT TTCTCTTACA AAATGTATTC TGACGCAGGA	960
TCTGGGTTTG CCGGTGATGA AACAAATGTTT CATGCTATTG AAGATTCTAT CAAACACAAC	1020
GTGATGTTG TTTCGGTATC ATCTGGTTTT ACAGGAACAG GTCTTGATAG TGAGAAATAT	1080
TGGCAAGCTA TTCGGGCATT AAGAAAAGCA GGCATTCCAA TGGTTGTTCG TACGGGTAAC	1140
TATGCGACTT CTGCTTCAAG TTCTTCATGG GATTTAGTAG CAAATAATCA TCTGAAATG	1200
ACCGACACTG GAAATGTAAC ACGAACTGCA GCACATGAAG ATGCGATAGC GGTGCTTCT	1260
GCTAAAAATC AAACAGTTGA GTTTGATAAA GTTAACATAG GTGGAGAAAG TTTTAAATAC	1320
AGAAATATAG GGGCCTTTT CGATAAGAGT AAAATCACAA CAAATGAAGA TGAACAAAA	1380
GCTCCTAGTA AATTAAATTT TGTATATATA GGCAAGGGGC AAGACCAAGA TTTGATAGGT	1440
TTGGATCTTA GGGGCAAAAT TGCAGTAATG GATAGAATTT ATACAAAGGA TTTAAAAAAT	1500
GCTTTTAAAA AAGCTATGGA TAAGGTGCA CGCGCCATTA TGTTGTAAA TACTGTAAAT	1560

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TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTAAAAGTC AAGTGTTTTC AATTTTCAGGA GATGATGGTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAACTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTACT TTTAAAACCC	1920
GATGTTTCAG CACCTGGTAA AAATATTAAA TCCACGCTTA ATGTTATTAA TGGCAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAAATTAAA GGAAATGCTT GAAAGACCTG TATTGAAAAA TCTTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATTGCCC TACAAAATAC TGCGCGACCT	2160
ATGATGGATG CAACTTCTTG GAAAGAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAGGTTT GGTAACTCA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAAGT ACAGATTAAA ACTTGATGAA	2460
ACATATAAAG ATGAAAAATC TCCAGATGGT AAGCAAATTG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAAG GAGCAAATAT CACATTTGAG CATGATACTT TCACTATAGG CGCAAATCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACAAAAA TAAATTTGTA	2640
GAATCATTTA TTCATTTTGA GTCAGTGGAA GCGATGGAAG CTCTAACTC CAGCGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTCGATG CCTCTAATGG GATTTGCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGT CAAGATCAAA AACTGCGGA	2820
GGTTATGATG ATGATGGTAA ACCGAAAATT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGGTA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAAG AGGATTAACA CCTTCTCCAC TTGTATTAAG AAGTGCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14672 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

CGAGATTTCT TTAAATGAAC TACGTGAAAT CTACCCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATTT TAATATAAGT TCTCATGCTT TTAAAGCTTC	120
GGTAAGAGAT TTAAAACCGC TCAGTTTCCC ACTCATTTGC TTCTGGGAGA GTTCTCATT	180
TATTATTCTT GAAAAAATTA GTAAAAACAA GTTTTATATT TTAGATCCTG CAAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTTGAAAG GCATTATTCA AATATCATTT TAACATTTAA	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAGA TAATAAGAAG TCGCCTGTTT TAAAGTATT	360
TTTTAAGTAT AGGAATAAGC TAGGGATTTT ATTTTGTGTA ACAGCATTAT TGTATGTAAT	420
ACAATCATTA GTACCTATAG CTAATAGATA CATAATTGAC ACGAATTCA AGGACGATTC	480
GTATTCGTCT AGAATGTTAT TTAATATATT ATTTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTTAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTTAGAG CTAATCTAT TGTTTATATA AGAGAAATAC TATCAAATAA	720
TTTTATAGCA GCTATACTTG ATTTGTTAAT GATTGTGGTT TATGCTGTGG TTTTATTTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTAAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAAATTT AATTGATAAA AATATAAAAG AAAAGGTTAA	900
TGTTCAAAAT ATTACTTCCG AAGTAATTTC TAAAAATAGT GATATTAAGC TAACTGGAGA	960
AGAGGAATTT TGGATTAACA AATGGGATAA TTTTAATACA AAACAGCTCA TCATAGGTCG	1020
AAAAGTTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAA TATAAAAACA TTCGAACAAT TGACGTTAGG	1140
ACAAATTGTA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCCTATAA TTTCTTTAAG	1200
TGATAACTAT ATACAATTAA TGTATTAAAG GGGATATTTT TTAAGAATAG AGGATGTGTT	1260
TAATACTAAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAGG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTTGCTATT GTTGAGAAT CAGGTCAGG	1440
TAAGAGTACA TTAGCTAAAA TTTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATTGG TCAAACATTG TATAGAAAGA TTTTGGAGC	1560

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AGTGTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAATTGA CATTTGGACA	1620
CTTTGTTTCA GATGAAGAAT TAATGACAAA TCTAAATTCA ATTGGTCTTA GCAATGTAGT	1680
TAAATCTTTA CCTCTTGGAT TAGAGACAAT CATCGCTGAA GAAGGTAATA ACTTTTCTGG	1740
AGGGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT	1800
TTTGGACGAA GCAACAAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTTCTTACTT	1860
AAGTGAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGTCTGC	1920
AGATAAGATC TTAGTAATGC ATAATGGTGA AATTGTAGAG ATGGGGACCC ATAGAGAACT	1980
TCTTGAAC TAAGGCATTT ATAAGCAATT GTATTCAAAT AATTAGTTTT TGATTAAAAG	2040
GGTAAATTTA TGAAGATTAT GAAAAAATA TATTGGACTT TAGCGATATT ATTCTTTTGT	2100
TTGTTCAATA ATTCTGTTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT	2160
CACACTCAGA CTAGCGAAAG TTTTCTGAA TCTGATGAAA AACAGGTTGA CTATTCTAAT	2220
AAAAATCAAG AAGAAGTAGA CCAAAATAAA TTTCGTATTC AAATCGATAA GACAGAAATTA	2280
TTTGTAACAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAACT TGAACCACAA	2340
ATAAATAACG ATATTGTTAA CTCTGAAAGT AATAATTTAC TAGGCGAAGA TAATTTAGAT	2400
AATAAAATTA AGGAAATGT TTCTCATCTA GATAATAGAG GAGGAAATAT AGAGCATGAC	2460
AAAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT	2520
GGTGGAGCGC AAAGTATATA ATTATATTCT AAAAGTAATT CTAAAGTTTC AATTGCTATT	2580
TTAGATTTCAG GAGTCGATTT ACAAATACT GGATTACTGA AAAATCTTTC AAATCACTCA	2640
AAAACTATG TCCCAATAA AGGATATTTA GGAAAAGAGG AGGGAGAGGA AGGAATAATA	2700
TCAGATATTC AAGATAGATT AGGTCATGGT ACGGCTGTTG TAGCTCAAAT TGTAGGGGAT	2760
GACAATATTA ATGGAGTAAA TCCTCACGTT AATATTAACG TCTATAGAAT ATTTGGTAAG	2820
TCGTCAGCTA GTCCAGATTG GATTGTAAAA GCAATTTTTG ATGCTGTAGA TGATGGCAAT	2880
GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA	2940
ACAAATGATT TTGAAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAAA	3000
GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAGTCAGAT	3060
TTATTGAAAC TTATTAGTTC ACGCAAAAAA GTAAGAAAAC CAGGATTAGT AGTTGATGTT	3120
CCAAGTTATT TCTCATCTAC AATTCGGTC GGAGGCATAG ATCGCTTAGG TAATTTATCA	3180
GATTTTAGCA ATAAAGGGGA TTCTGATGCA ATATATGCGC CTGCAGGCTC AACATTATCT	3240
CTTTCAGAAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAAGA AGATTGGATT	3300

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TTTTCGGCAA CACTAGGAGG ATATACGTAT CTTTATGGAA ACTCATTGTC TGCTCCTAAA	3360
GTTTCTGGTG CGATTGCAAT GATTATTGAT AAATACAAAT TAAAAGATCA GCCCTATAAT	3420
TATATGTTTG TAAAAAATT CTGGAAGAAA CATTACCAGT AAAAAATGGT ATAAAAGTGT	3480
TAAATATACC AAACGTATTG AGATATGATT TGAATATGTT ACAATTAGAA TATAAAAATG	3540
AACAAAGTTG GGATAGTTTC ATAGATAATG TTAATTTAAT TGAGTTGGAA GAGAGAATTC	3600
AAACTACTAT TGAATTTAAA CAAATAAACA CACACAATAT TATTACTATT GCCCGAGAAG	3660
GGTACTCTCA AAATTATTTA CCTAACACTT CAGAAAATAC ATATAATTCA TTACAAGTCA	3720
GTTTAGTTGG AGTATTACTA CTTTTTATAA GTATGGTAAA TATTTTATGG GCTAAAAAAA	3780
GTAATGAAA ATAAAATTTG GAGCCCTCTG AAAAAGTAAG TCCTACAGTT CAACTAAAAT	3840
GAGTCAAAAG ATGAATCACC TTGATGTAGG GGAGTTTGTC TTATTGCTGC CTGAACACCT	3900
CCGTTTCAGAG GAAGAACATT ATAAATCTGT TTTTGAAGAC GACTTAACCA GTCGCATATC	3960
TAGTCAAGAT GAACGACAGC AAATGACTGC TACGGTAGGT TATTTAGAAT CAGGTCAGGA	4020
TCGTTTGTG TATAATACGA CCCCTATTTC TTACCAGCAG TTTTGAAG ATCCAATCAT	4080
CATTGTTATA ACACCCCAAT CAACTGGTCC ACAGTCCATT TTGTTTGGGA TAGACGCAGT	4140
ACAGAACTAC GTTCTCTTTA ATCAATGTGC TGATGCCCAG GAGCTTATCC AGAGACAAGG	4200
CATTGAAAAT TGGGTCTCAG AAATGCAAAC AGGTACCAC AACTACATCA CATTATTGGA	4260
TAATATCCAG AGGGAACGTT GGGTAATGCT AGCAGGAGCT GTGCTTGGGA TTGCAACTTC	4320
AATCTTGTG TTTAACAATA TGAATAGGCT CTACTTTGAA GAATTTAGAC GTGCCATTTT	4380
TATCAAACGC ATTCAGGTC TCAGGTTCTT AGAAATCCAT CGCACTTATC TCTTGTCTCA	4440
ACTGGGTGTG TTTTACTGG GATTTGTTGC GAGTGTATTT CTTCAGGTAG AGATAGGAGT	4500
TGCTTTCTTA GTCTTGTTAC TCTTACTGG TCTATCTCTT TTACAGTTAC ATGTCCAAAT	4560
GCAGAAAGAA AACAGATGT CCATGCTTGT TTTGAAGGGA GGTAAATATG ATTGAACCTA	4620
AACAGGTGAG TAAATCTTTT GGAGAACGAG AGTTATTTTC GAATCTTTCA ATGACATTTG	4680
AGGCTGGAAA AGTCTATGCC TTAATTGGTT CAAGTGGTAG CGGAAAAACA ACCTTGATGA	4740
ACATGATTGG GAAATTAGAA CCTTATGATG GGACGATTTT TTACCGAGGT AAAGACTTGG	4800
CCAATTATAA ATCAAGTGAT TTTTCCGTC ACGAATTGGG CTACCTCTTC CAGAACTTTG	4860
GCTTAATTGA AAACCAAAGT ATTGAAGAAA ACCTTAAGCT AGGTCTCATT GGTCAAAAGT	4920
TGAGTCGGTC GGAACAGCGG TTGAGGCAGA AGCAGGCTTT AGAACAGGTC GGCCTGGTTT	4980
ATCTTGACCT AGATAAGCGC ATCTTTGAGT TATCGGCGG AGAATCGCAA CGGGTTGCCT	5040
TGGCAAAAAT TATCTTAAAG AATCCACCCT TTATTCTGGC AGATGAGCCA ACAGCTTCAA	5100

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TAGACCCAGC AACCTCTCAG TTGATTATGG AGATTTTGCT ATCTCTTCGA GATGATAATA	5160
GGCTAATCAT TATCGCAACA CATAATCCGG CAATTTGGGA GATGGCTGAT GAAGTGTTC	5220
CGATGGATCA TCTGAAATAA AAATCCTTGT TTTTAATTGC ACGATGAGTT ACTGAAATAT	5280
TATCATGAAT CAAGAATTGG AGTTAATTGA GAATTGTACT TAATTTAGAA TTGTACTTTA	5340
TTAATATTGA GGTAACTTTT TCTTGATAAA GGAAGAAATA ATGGAGAGGA AGTTAGAATG	5400
AAAAAATTCG ACAATTATAT TATTGAGAAG CCTTGCGATT CTAATTCAGA TAAACTGCAA	5460
AAAATCTTAA TAATTGAAAG TTTGGTAGAT GATATTTTGC AATTTTCTCT CAGAATCAAT	5520
AATAGTGTAG GAGAGATTTT CCTCCTACAA CCGTTTTTAA AGAAAACTAT CTTTATTCCA	5580
TGTTATTTTG AGGAAGATAT TGTGAAAGTC AAAGATGATG ATAAAGTTGA GTGGAATTTG	5640
TTAGAAATTC AAAAATTAG AGCATTTTTG GCTTAGTAAT CTGTGTTGAA GGCTCAAAAC	5700
CTATGGTAAA AAAGTAGCTT TGAACACGTA TTGCCTCCAA AGATTTAGTT AAATAATGAT	5760
TTAACACAAA AAGAAATTAT TGAAGTTCTG GAAAGATGTT GTTTCAGTAT TGAGAAAAGG	5820
TGGGAAAAAC TTGCGATTTT CACAGAGAAA GGAAGAAAAA GTATAGAAAT ATAGTCAATT	5880
GAAACAAGAA CAGGATAAAA GAACCTTTTG TGCCATATTT TTCTCCTTTC GCTTTACAAT	5940
TGGATTGAAC ACCTTTATTG TATCGCGTTT GGAGTTTTTT TGGTATAACC TTCGACGCAC	6000
ACCCGCATAG CGGGTGTTTT TTTTGTCTCG CACCTAACGG AGCGAGACAA ACTAATAGTC	6060
ACTTAATCAA AAAACGCACC ATATCAAAAA CTAAAAAGTT TGATATCATG CGTCATGTCT	6120
TAAACTAATT GACTATACTT TCTATTCAA TGAGCTTTTA ACCAATTGAT TGAGCCAATC	6180
CACTCTTAAA ACCAAAGAGC AATTTCTCGC TTAGCTGACT CTTCTGAATC TGAACCATGT	6240
ACAACATTTT GGATAATCTC ATTTTCTCCA GCAGCTTTTG CAAAATCACC TCGAATAGTG	6300
CCTGGTAAAG CTTCTTCTGG ACGAGTTGCA CCCATCATGG TCCGCCAAGT TTCGATTACT	6360
TTGGGACCAG AAATGACACC CACAAGAACT GGACCTGAAG TCATGAATTC ACGAATCGGT	6420
GGGTAAAAAC TCTGACCAAC CAAGTCCTGA TAGTGCTGGT CAATCAACTC TTCTGAAACC	6480
TGTGAACGAA ACTCCAATTT TTCGATTGTA AATCCACGTT GTTCGATGCG CTTTAACACT	6540
TCACCCACTA GCCCTCTTTT TACACCATCT GGTTCGATGA TAAAGAATGT TTGTCCATA	6600
CCCGTCTCCT TTGTACGCTT CTTTCTTTTA TTTTACCACA TTTCGTGGAA AAATGGAGAA	6660
AGTTTTCAGA AGAGAGAATG AGAGAACCCT CGGGTTCTCT CATCTCTCT TATTCTACTG	6720
TTTCTTCCAC AGTTTCAACG GCAGTATCCA CAACTACTTC TGTGTTTCT TCATTTCCCT	6780
CTTCTCTAC TGGAGGATTA AGGTATTCTT CTTCTTGAC AGCATGTGGT TCAAGGTTAC	6840

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GGTAACGGGC CATACCAGTA CCAGCTGGGA TGATCTTACC GATGATAACA TTTCTTTAA	6900
GTCCAAGGAG ATGGTCTTTC TTACCACGGA TAGCTGCGTC AGTAAGGACA CGAGTTGTTT	6960
CCTGGAAGGA AGCCGCTGAC AAGAACTGT TTGTTTCAAG TGAGGCTTTG GTAATCCCA	7020
TAAGGACTGG GCGACCTGTC GCTGGAATC CACCTGCGAT AAGGACATCT TTGTTGGCAT	7080
CTGTAAAGTC ATTGATATCC ATGAGGGTAC CCATGAGAAG ATCTGTATCA CCTGGATCCA	7140
TGACACGGAC TTTACGGATC ATTTGACGAA CCATTACCTC GATGTGTTTG TCACCGATTT	7200
CTACCCCTTG GCTACGGTAA ACTTTTGTGA CTTACCGAG AAGGTACGTT TCAACTGACA	7260
AGACATCAGC AACTGCAAGG AGACGTTTGT GTTGGATAGA ACCTTCTGTC AGAGCAGCAC	7320
CACGCGTAC TTGGCCCCA ACTTCGACAC GCATACGAGC TGTAAATGGA ACGACATATT	7380
CACCTTCGCC AGTTTCACCC TTAACAAAGA CTTTCTTGGT ACGAGTTGAT GCATCTTCTT	7440
CGATAGCAGT AACTTGTCTT TTAACCTCTG TAATAACCGC TTCCCTTTTA GGATTGCGGG	7500
CTTCAAAGAT TTCTTGACA CGAGGAAGAC CCTGAGTGAT ATCGGTATTT GAGGCAACCC	7560
CACCTGTGTG GAAGGTACGC ATTGTAAGCT GTGTACCAGG TTCCCCGATA GATTGGGCAG	7620
CGATTGTACC AACTGCTTCA CCAACTTCAA CCGCATCACC AGTCGCCAAG TTGATACCGT	7680
AACAGTGACG GCAGACACCG TGACGAGTGT TACATGTAAA TACAGAACGG ATAGTCACTT	7740
CTTCCACACC AGCATTGACA ATTTACGCGC CTTGTCTTC TGTAAATCAAT TCATTGGAC	7800
CAATAATCAC TGCACCACTT TCTGGATGTT TAACAGTTTT CTTAGTGTA CGACCGTTGA	7860
GACGCTCTTC GAGAGACTCG ATCATCTCTT TTCCTTCTGC GATAGAACGG ATCAAGAGAC	7920
CACGGTCAGT TCCACAGTCG TCCTCACGGA TGATAACGTC TTGGGCAACG TCGACCAAAC	7980
GACGAGTCAA GTAACCTGAG TCGGCTGTCT TAAGGGCCGT ATCGGTCATA CCTTTACGAG	8040
CACCGTGAGT TGAGAAGAAC ATTTCCAATA CCGACAAACC TTCGCGGAAG TTTGAAAGGA	8100
TTGGCAATTC CATGATACGT CCATTCCGAG CAGCCATCAG ACCACGCATA CCGCAAGCT	8160
GTGAGAAGTT TGAGATGTTA CCACGGGCTC CAGAGTCCAT CATCATAACG ATTGGGTCT	8220
TAGGATCTTG GTTAGCAATC AAGCGTTTCT CAAGTTTTTC ACGGGCAGCA CGCCATTCAG	8280
CTGTAACAGC ATTGTAACGC TCGTCGTCTG TGATCATACC ACGACGGAAT TGTGTTGGTA	8340
TTTGTTCGAC ACGTTTGTGT GATTCTTCAA TGATTTCAGC CTGTGCATCA ACGACTGGGA	8400
TATCGGCAAT ACCCACTGTC AATCCTGCAA GAGTTGAGTG GTGGTAACCG AGGTTCTTCA	8460
TGCGGTCAAG TAGGGCAGAA GTTCTGTCTG TACGGAAACG TTTGAAGATT TCAGCGATGA	8520
TATTTCCAAG GTTTTCTTTC TTGAATGGAG GGTGAGCTC AAGATTGCTG ATAGCTTCCT	8580
TGATATCTCC ACCAAGTGGC AAGAAGTATT TAGCTGGAAC ACCTTCTGTC AAGTTGGCAT	8640

811

TGTTTGGTTC TTGCAAGTAT GGTAGCCCCT CTGGCATGAT ATCGTTGAAG AGAATTTTAC	8700
CAACTGTTGT AAGCAAGACC TTATGTCTTT GCTCTTCTGT CCAAGGCTTG TTGAGGCTGT	8760
CTGTTGCGAT ACCAACACGT GAGTGGAGGT GAACATAACC ATTGCGGTAA GCCATAACCG	8820
CTTCGTCACG GTCCTTGAAG ACCATTCCCT CACCTTCGCG ACCAGCTTCT TCCATGGTCA	8880
AGTAGTAGTT ACCCAAAACC ATGTCCTGAG ATGGAGTAAC TACCGGTTTC CCATCTTTCG	8940
GGTTCAAGAT GTGCTCAGCA GCTAGCATGA GGATACGAGC TTCTGCTTGT GCTTCTCTG	9000
AAAGTGGTAC GTGGATGGCC ATTGGTCCC CGTCAAAGTC AGCATGTAG GCTTCACAGA	9060
CAAGTGGGTG CAAGCGAAGA GCCTTACCAT CAATCAAGAC TGGCTCGAAG GCTTGGATAC	9120
CCAAACGGTG AAGGGTCGGT GCGCGTTCA AAAGCACTGG GTGTTCTTTA ATCACTTCTT	9180
CAAGGATATC CCAGATACGC TCATCTCCGC GTTCCACCAA GCGTTTAGCT GCTTTGACGT	9240
TTTGACGAT ATCACGGCA ACGATTTTAC GCATGACAAA TGGTTTAAAG AGTTCAATCG	9300
CCATTTACAG CGGCACACCA CATTTGTACA TCTTAAGAGT TGGACCAACG GCGATAACTG	9360
AACGTCCTGA GAAGTCAACA CGTTTACCGA GCAAGTTTG ACGGAAGCGT CCTTGTTTAC	9420
CTTTAAGCAT GTGGCTCAAT GATTTCATG GACGGCTACC TGGTCCTGTG ATTGGACGAC	9480
CACGACGACC ATTGTCAATC AAAGCGTCAA CTGCTTCTTG AAGCATACGC TTCTCATTTT	9540
GAACGATGAT ACCTGGTGCA TTAACTCAA GCAAACGAGC CAAACGGTTG TTACGGTTGA	9600
TAACACGGCG GTAAAGGTCA TTCAAGTCAG ATGAGGCAAA ACGGCCACCA TCCAACGCA	9660
ACATTGGACG AAGATCTGGT GGGATAACCG GAAGGATGTT AAGAATCATC CATTCAGGTT	9720
TGTTTCCAGA CTTGTAAAAG GCATCCAAA CATCCAAACG ACGGATGGCT TTGACACGCT	9780
TTGTCCAGT AGCTGTTTTC AATTCTTCTT TGAGTTCAGC AATTCTTTT TCAAGATCTA	9840
CTTGCTTCAA AAGGTCTTGG ATGGCTTCG CACCCATCTT GGCAACAAAT GAACCATAAC	9900
CATATTCACG CAAGCGCTCT CGGTATTCGC GCTCTGTCTAT GATAGACTTG TGCTCAAGTG	9960
GTGTATCCTT AGGATCAATC ACCACATAAG CCGCAAAGTA GATAACTTCC TCGAGGGCAC	10020
GAGGGCTCAT ATCAAGGGTC AAGCCCATAC GGCTTGGAAT CCCCTTGAAG TACCAGATGT	10080
GAGATACAGG AGCTTTCAAT TCGATATGTC CCATACGCTC ACGACGAACT TTCGTACGCG	10140
TTACTTCAAC CCCACAGCG TCACAAACAA TTCCTCTGTA ACGAATGCGT TTGTACTTAC	10200
CACAAGCACA TTCCAGTCT TTTGTAGGAC CAAAGATCAC TTCATCAAAG AGTCCTTCAC	10260
GTTCGGTTT CAAGGTACGA TAATTGATTG TTTCAGGTTT TTTGACTTCT CCATAAGACC	10320
ATGAACGGAC TTTACTTGA GAAGCTAGG TGATTGTCAT ACTTTAAAA CGATTACAT	10380

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CAACCACTAT TTCTTCCCTT TCTATTCTAA GTGAACGTCT TATTCTTGTT CAGCAGCTTC	10440
TTCTGTGCT TCCGCTTTTG TTGCTTCTC AGCTTCTTCA GCTTCAAAGG CTGCTTTAGC	10500
CTCTTGGGCT GCTTTTTCGC GGGCTTTTTC AAGGTCATCT ACGTGGATGA CATCTTCGTC	10560
CATTCCCTCA TCCAAGTCGC GAAGTTCAC TTCTTGGTCA TCTTCGTCTA GGACACGCAT	10620
GTCAAGACCA AGAGATTGCA ATTCTTTGAC AAGAACTCGG AAGGATTCTG GAACACCTGG	10680
TTTGTGAATT GGTTCGCTT TTGTAATAGC TTCATAGGCT TTCAAACGTC CGTTGATATC	10740
GTCCGACTTG TAAGTCAAGA TTTCTTGAAG GACATTGAC GCACCGTAGG CTTCAAGAGC	10800
CCAAACCTCC ATCTCACC GAACGTTGTC ACCAACTGA GCCTTACCTC CGAGTGGTTG	10860
TTGGGTAAACA GTTGAGTATG GTCCGACTGA ACGCGCGTGC AATTTATCAT CAACCATGTG	10920
GTGGAGTTTG ATCATGTACA TGACTCCGAC AGAAACACGG TTATCAAACG GTTCACCAGT	10980
ACGTCCATCG TAAAGGATCG TTTTGGCATC GCTATCCATA CCTGCTTCTT TAACAGTTGA	11040
CCAAAGATCT TCAGAACTG CTCCATCAAA GACTGGTGTA GCGATGTGAA TACCAAGAGT	11100
ACGAGCTGCC ATACCAAGGT GAAGCTCCAT AACCTGACCG ATATTCATAC GTGATGGTAC	11160
CCCAAGTGGG TTCAACATGA TGTCGACTGG AGTTCCGTCT GGAAGGTAAG GCATGTCTTC	11220
TACAGGAACG ATACGAGAGA CAACCCCTTT GTTCCGTGA CGTCCGCCA TTTTATCTCC	11280
GACCTTAATC TTACGTTTTT GAGCGATGTA AACACGAACC AACATGTAA CACCTGATTG	11340
CAACTCATCT CCATTTACAC GTGTAAGAT CTTAACATCA CGAACGACAC CATCGGCACC	11400
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CAAGAGACGT TCTTCAGCTG AAAGATCTTT CTCACCCTTA GGTGTTACTT TACCTACAAG	11520
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ACCTGAGTTT GAACGACGGA ATTTTGGAT GTGGTAAACA TCCAATGAAC CATCTTCACG	11940
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AGCCGCACCA GAATCGTGGG CTGCTTGGTA TTCCATACCA GTACCAACGT AAGGTGCCTG	12060
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GTCATCGTTT TCCAAGAAAG GAATACATGC TGTCGCAACG GCAACTACCT GTTTTGGTGA	12180

813

AACGTCCATG TAGTCAACAA TATTAGCTGG ATACTCTTGG TTGACCCCTT GGTGACGTCC	12240
CATGACAATC TTCTCAGCAA AGGTTCATC TTCATTGAGA CGAGAGTTAG CCTGAGCTAC	12300
AGTATATTCA TCTTCTTCAT CAGCTGTCAA CCAAACAATT TCGTTCTGTA CAACACCTGT	12360
TTACACGGTCA ACCTTACGGT ATGGTGTGTT AACAAAACCA TATTTGTGTA AGTGTCCTATA	12420
AGATGACAAG TTATTGATCA AACCGATGTT AGGTCCTTCA GGTGTCTCGA TTGGACACAT	12480
ACGACCATAG TGAGTGTAGT GCACGTCACG TACTTCATAT CCAGCACGGT CACGAGTCAA	12540
ACCACCAGGT CCTAAGGCTG ACAAACGGCG TTTGTGAGAC AACTCAGAAA GCGGGTTGTG	12600
TTGGTCCATG AACTGTGACA ACTGTGATGA ACCAAAGAAT TCTTTAACTG CAGCTGTTAC	12660
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ACCAACCGCA CGGATACGAC GATTTCGAAG GTGGTCGATA TCATCTACAC GGCCAAGTCC	12840
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GATGTAGACA ATCTTGTGTA AGTCGCCATC CAAATGGCTT TCAATGCTTT CAATCACGCT	13080
ACGAGTCATA ATCGTACCAG CTTCTACCAA GATTTCTCCA GTTTCAGGGT CTACCAATGG	13140
CTCTGCAATG GTTTGGTTGA GCAAACGTGT TTTAACATTG AGTTTTTTAT TGATTTTGTA	13200
ACGACCAACT GCTGCCAAGT CATAACGACG TGGGTCAAAG AAGCGAGCTA CAAGCAAGCT	13260
ACGTGAGCTT TCAGCCGTCT TAGGCTCACC TGGACGAAGG CGTTCGTAAA TTTCTTTCAA	13320
GGCTTCGTCT GTACGAGAGT CCATTGGATT CTTGTGGATA TCTTTTTCAA CAGTGTGCG	13380
AACCAATTCG CTGTACCAA AGATATCAAA GATTTCATCA TCACCTGAGA AACCAAGAGC	13440
ACGAACCAAG GTTGTAATG GAATCTTACG AGTACGGTCG ATACGAGTGT AGGTGATATC	13500
TTTTGAGTCG CTTTCAAGTT CCAACCAAGC TCCACGGTTA GGGATAACAG TTGAACCATA	13560
GCCCACCTTA CCATTTTTGT CTACTTTGTC GTTAAAGTAA ACACCTGGTG AGCGGACCAA	13620
CTGAGAAACG ATAATACGTT CACCACCATT GATGATGAAA GTACCCATTT CTGTGATGAT	13680
TGGGAAATCA CCAAAGAAAA CTTCTTGGGT CTTGATTTG CTTGTTTCTT TATTGATCAA	13740
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CGTATATTTT GGTTCCTTGA TTTTCATATCC AACAAATTC AACTCCATTG TGTCTGTGAA	13860
GTTTGAAATT GGCAATACAT CTTCAAACAC TTCCTTAAGA CCGTGGTCTA GGAAAGCTTT	13920

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GAATGAGTCA GTTTGAATTT CAATCAAATT TGGTAAGTCA AGAACTTCTT TGATTCTTGA	13980
AAAACCTACGA CGGGTACGAT GTTTCCCGTA TTGAACGTCA TGTCTGCGCA AGATGATTCT	14040
CCTTTGTAAA TAAGTTCCAA GCCTTGTCAG TCAGGCTTTT CTAATCGTCA TATGGTTGTA	14100
AACCCCTTAT CACCGTGTCC TCTTGACGAA TTTTCAGAAT CTTTAAGCCT CTGTTACAAA	14160
TGCTCAAAAT CTTGAAAAA AGCACAAAA GAGCAGCTAA ATCTGACTTT TTCAGAAGAT	14220
TTAACTGCTG TGAGCCTTGT CTGGACAATA TTTCAGACAA AACCTACGAC AAATGATTAC	14280
CCATATTATA CCCTATTTAG CTAGATTTT CAAGGGGTTT CAGTAGGTTT TTGGTAAATT	14340
TTTTCCCATA GAAACTTGG CATCACATTC GAATCACGCT ATGGTACAAA AAAGTAAAA	14400
AACTATTGAC TGAAAATCAT TTTCAAGTA TAATAATAAA CGTTAAGCG GTATAGCCAA	14460
GTGGTAAGGC ACGGCTCTGC AAAAGCTGA TCGTCGGTTC AAATCCGTCT ACCGCCTTCT	14520
ATAACTTGAT TTATCAGTT TCAAATGAAC AGAAAGCCCA ATTTGAAGGG CTTTTTTTAT	14580
TTCCCTCGA ATAAATACGT ATAACTTAA AAACCTTTGG AGCGAGTTG TGGCAGAGTT	14640
CTTCCATGG CATAATTCCC TTTGAAATC AG	14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7902 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT TCAAGCCCAA ATTgAGTAGC CCAGCAAAGA CTGTATAGAC TGTGATACGT	60
TTTTCATAGC CATTTGGTAAA GAGAATTGG GAACCAAGAA TGGTATCTAA GGCCAGGATA	120
ATCGTACGAA AAGCGAAGAG AGAGGTCAAG ATGCCGCTC CGATATATTT TTCACTACCG	180
TAAAGTAGGA TGGCATTTGG TCCTAAAACC ATGAGTCCAA AACTCAGTGG AATGATAAAG	240
AAGTTAAAGA TTCGACTACC TCTATTAACC AGAGAAACAT AGGCTTCTTT GTCTCCTTTC	300
CCCAGATAGT AACTGAGACG AGGCACACTC ACTCCAATTG CACCTGTTAC AACCCAGCT	360
ATAACGGTCA CAATTCGCTG AGCTATGGTA TAGTAACTAA CGTTGACATC AATCCCTGTT	420
TTAACGAGGA AGAGGCGATC TAAAAAAGTG AAGAGCATAT TGGCATTGGC AAAGACTAAC	480
ATGGCTGTCA GAGGGAGAAA GAGTGGTTTA AAATCACTTA GGTGAATTTT AACAAGTTTG	540
ATGTCTCTTT TAATCCAAAA ATAACATAAT AGGTAGTTAA TCAGCGTCGA TAAACTCATC	600
ACAAGTGTAT AGACAACAAT ATCGTGTTC TTTTAAACAA ATAAGAAAAT AGAGACCAGC	660

815

ATCAGGATAC GGATGAAGGC AGTTTGTAA AAGAGAAAAC TGTAATTTTC CAGAGCTTCA	720
TTGACCCATT CGATTGAAAA AATCTGGGCA ATGAGTTGAA TCCCCATAAC AAGGTAGACC	780
TTTTTGACGA TTGGATTATC AGTAAAGAAG AGAGGATAGG CTAGGATATA GACAGCAGTG	840
GTCAAAATCG TACAAGCGAT GCACAAATAA AAAAGACTAG AAAAGGTTCT GTTAAGATCT	900
TTTTTGTTAT CCTTGACATT ACTGATAGCC CTTAAACCGT AGTTATAGAC ACCATAAGTT	960
GCAAAGGGCA AGAAAAATGA CAAAATAGTG TCGACTGAGT TGAAGTAACC ATAGTCAGTT	1020
CGGTCCAAGA CACGCGCGAC ATAGGTTCCT GTTAGGATGG GAAAAATAAT ATTCAAGACA	1080
CGAATTCCCA TGTAAGATAG AGCATTTAAT TTTATACTTT TCATTCAATT TACCTCGTTT	1140
TTCATTATAT CATAAAGTTA GCTAATAAGA AATGAAGGGC AGTAAGTCAA GTAATCACTT	1200
TGAAGTTTCA AATCTTAAGT TTTAAGTTTT CTTAAGGAA AGTATATTAT TCTGAAGGAC	1260
TCTAAAATTT CGCAGCCATT TATTAGTAAT TGCTACAGAA TTCCTAGTCA TTACTAGAAA	1320
TGGACTAGTT TCTTTGAATA ATAGAACTGC ATAATTCTCC TATTCTAGAA GGGGAGGACC	1380
AGTATTCTTT TTATGATAGG ACTAGATTGT GGTATAATAG AGAGAATAAG TTTTTTAGT	1440
AAGACAAAGG AGAAAATAGA TGATTTATGC AGGAATTCTT GCCGGTGGAA CTGGCACACG	1500
CATGGGGATC AGTAACTTGC CAAAACAATT TTTAGAGCTA GGTGATCGAC CTATTTTGAT	1560
TCATACAATT GAAAAATTTG TCTTGAGGCC AAGTATTGAA AAAATTGTAG TTGGTGTTC	1620
TGGAGACTGG GTTTCTCATG CAGAAGATCT TGTAAGATAA TATCTTCTC TTTATAAGGA	1680
ACGTATCATC ATTACAAAGG GTGGTGCTGA CCGCAATACA AGTATTAAGA ACATCATTGA	1740
AGCCATTGAT GCTTATCGTC CGCTTACTCC AGAGGATATC GTTGTACCC ACGATTCTGT	1800
TGTCCTATTT ATTACACTTC GCATGATTCA GGACAATATC CAACTTGCCC AAAATCATGA	1860
CGCAGTGGAC ACAGTGGTAG AAGCGGTTGA TACTATCGTT GAAAGTACCA ATGGTCAATT	1920
TATTACAGAT ATTCCAAATC GTGCTCACCT TTATCAAGGA CAAACACCTC AAACATTCCG	1980
TTGCAAGGAC TTCATGGACC TTTATGGATC TCTTCTGAT GAAGAGAAGG AAATCTTGAC	2040
AGATGCATGT AAAATCTTTG TGATCAAAGG AAAAGATGTG GCTTTGGCCA AAGGTGAATA	2100
CTCAATCTG AAGATTACAA CCGTAACAGA TTTGAAGATT GCAAAAAGTA TGATTGAGAA	2160
AGACTAGTAA AATGATTAAT CAAATTTATC AACTAACTAA GCCTAAGTTT ATCAATGTCA	2220
AATATCAGGA AGAGGCTATT GACCAAGAGA ATCATATCCT TATCCGTCCC AACTACATGG	2280
CTGTCTGTCA TGCGGATCAG CGTTACTATC AGGGAAAACG TGATCCCAAG ATTTTGAATA	2340
AAAAGCTTCC AATGGCAATG ATTCACGAGT CATGTGGAAC CGTCATTTCT GACCCGACCG	2400

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GAACCTACGA GGTGGTCAA AAAGTTGTCA TGATTCCCAA TCAGTCTCCT ATGCAGAGTG	2460
ATGAAGAATT CTATGAAAAC TACATGACAG GGACCCATTT CTTGTCTAGT GGATTTGATG	2520
GCTTTATGAG AGAGTTTGTT TCTCTCCCTA AAGATCGTGT GGTGGCTTAT GATGCTATTG	2580
AAGATACGGT TGCAGCCATT ACAGAGTTTG TCAGTGTGGG CATGCACGCT ATGAATCGTC	2640
TATTGACTCT TGCTCATAGC AAGCGGGAGC GGATCGCCGT TATTGGAGAT GGAAGTTTAG	2700
CTTTGTGGT TGCCAATATT ATCAACTATA CTTTGCCAGA AGCAGAGATT GTGGTTATTG	2760
GTCGTCATTG GAAAAAGTTG GAACTCTTCT CATTTGCCAA AGAATGCTAT ATTACGGATA	2820
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GACCAGCTAT TAATGACTTG ATTCGCTACA TTCGTCCTCA GGAACGATT CTCATGATGG	2940
GAGTTAGCGA ATATAAAGTC AATCTCAATA CTCGCGATGC CTTAGAAAAG GGCTTGATTT	3000
TGGTTGGGTC ATCTCGTTCT GGTGCGATTG ATTTTGAAAA TGCTATCCAA ATGATGGAAG	3060
TCAAGAAATT TGCCAATCGT CTTAAAAATA TCCTTTATCT AGAAGAACCT GTAAGAGAAA	3120
TTAAGATAT TCATCGTGTC TTGCAACCG ATTTAAACAC AGCCTTTAAA ACAGTGTTTA	3180
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TCCTTACTTA GTCAAGAAGA GGAAGTCCTC AGTGTGTAAC AACTGGGTGG AATGACCAAT	3300
CAAACTATT TGGCCAAAAC AACAAATAAG CAATACATTG TTAAATTCTT TGGTAAAGGG	3360
ACAGAAAAGC TTATCAATCG ACAAGATGAA AAGTACAATC TTGAACTACT AAAGGATTTA	3420
GGCTTAGATG TAAAAAATTA TCTTTTGTAT ATTGAAGCTG GTATCAAAGT AAATGAGTAT	3480
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CCAATATTAC AAATATTCA TACGTCTGCT AAGGAATTAA GAGGAGAATT TGCTCCTTTT	3600
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TCTGTTAGAA ATGCAGTCTT CTCCTTAGAG AAAAGACTGG CTGACTTAGG TGTGACAGA	3720
AAATCTTGTC ATATCGATTT GGTGCCTGAA AACTTTATCG AATCACCTCA AGGACGACTT	3780
TATTTGATTG ACTGGGAATA TTCATCAATG AATGATCCAA TGTGGGATTT GGCTGCCCTC	3840
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GACCAAACAC CGGTTTCTCA TGAAAAGATT GCTATTTATA AAATTTTACA AGATACTATT	3960
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AAACGGAGTT CCTTTTGGCC TTCTCTCAGG TATTTTCTGG GGCTTGGGTC TAACGGTTAG	4140
TGCTTATATC TTTTCGATTT TTACAGATTT GTCACCCPTT GTGGTGGCTG CAACTCATGA	4200

817

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CTCAATTTTC TTAAATATTC GCAATGTCAG TGTATCATC GGAGCCTTGC TAGCAGGCCC	4320
TATCGGTATG CAGGCCAATC TTTATGCAGT TAAGTATATC GGAAGTTCTT TAGCTTCATC	4380
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AATCGAAGCC CTCTTAATCC GTCAAGTAAC TTCGTTCTTG TCCTATCTTG TGATTGTGCT	4680
CTTCTCTCAT CAGTCATTTA CTGCAGTAGC CAATGGACAA TTGCTAGGTC TCATGATTGT	4740
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ACCAGCCAAG GCTACAGGCT TGAACGTGAG CTATGTAGTA TGGACGGTCT TGTTTGCAGT	4860
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TGGAGTTTAT ATTATTATTA AAGAATAAAG GAGATTCGTG TGAAGCCAT TATCTTAGCA	4980
GCGGGATTGG GAACTCGCTT GCGTCCTATG ACTGAAAATA CCCCTAAAGC CTTGGTTCAG	5040
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GACATCATCA TCATTGTTGG TTATCTTAAA GAACAATTCG ATTACTTGAA AGAGAAATAC	5160
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CTTGTAAGAG AAGAATTGGC CAACAGCTAT GTTATTGATG CTGACAAATTA TCTCTTAAA	5280
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ACCAACGAAT GGTCTTGGT TTATGGAGAT GACTACAAGG TTCAAGACAT TATTGTTGAT	5400
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AGCATTTATG AGATCGATAG TGTCCAAGAC TATCGTAAAT TAGAAGAAAT TCTTAAAAAC	5640
GAAATTTAAA GATTCCAACA TCTGACAAAA TAGTCGGATG TTTTTTGATT TTTTACGAAC	5700
TTTACGAAT AGATAGATGA GTAGAAAAAG AAATGGAGTT ATTTATGAAA ATCACAAACT	5760
ATGAAATCTA TAAGTTAAAA AAATCAGGTT TGACCAATCA ACAGATTTTG AAAGTGCTAG	5820
AATACGGTGA AAATGTTGAT CAGGAGCTTT TGTGGGTGA TATTGCAGAT ATCTCAGGTT	5880
GCCGTAATCC AGCCGTTTTT ATGGAACGTT ATTTTCAGAT AGACGATGCG CATTTGTCTGA	5940

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AAGAGTTTCA AAAATTTCCTA TCTTTCTCTA TTTTAGATGA CTGTTATCCT TGGGATTGGA	6000
GTGAAATATA TGATGCGCCT GTACTTTTAT TTTACAAGGG AAATCTTGAC CTCCTGAAAT	6060
TCCCGAAGGT AGCGGTCGTG GGCAGTCGTG CTTGTAGCAA ACAGGGAGCT AAGTCAGTTG	6120
AAAAAGTCAT TCAAGGCTTG GAAAATGAAC TGGTTATTGT CAGTGGTCTG GCCAAGGGCA	6180
TTGACACAGC AGCTCATATG GCAGCTCTTC AGAATGGCGG AAAAACCATT GCAGTGATTG	6240
GAACAGGACT GGATGTGTTT TATCCTAAAG CCAATAAACG CTTGCAAGAC TACATCGGCA	6300
ATGACCATCT GGTCTAAGT GAATATGGAC CTGGTGAACA ACCTCTGAAA TTTCATTTTC	6360
CTGCCCCTAA TCGCATCATT GCTGGACTTT GTCGTGGTGT GATTGTAGCA GAGGCTAAGA	6420
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CTATTCCTGG TAGCATTTTA GATGGACTAT CAGACGGTTG CCATCATTTG ATTCAAGAAG	6540
GAGCAAAATT GGTCAACAGT GGGCAAGATG TTCTTGCGGA ATTTGAATTT TAAAAATGAC	6600
CTAAGCTAGA ATTTCAAGAA AAAATCAATT TTAAGAGAAA ATGAACCCAA CATTTCCATA	6660
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AGTAGAGTAG AGGATTTTTC TCATATAATA CTCTTCGAAA ATCTCTTCAA ACTACGTCAG	6780
CTTCCATCTG CAACCTCAAA ACAGTATTTT GAGCgaCTtC GTCAGTCTTA TCTACAACCT	6840
CAAAGCAGTG CTTTGAGCAA CCTGTGGCTA GCTTCCTAGT TTGCGCTTTG ATTTTCATTG	6900
AGTATAAGGG AAAGTATAGT GAATTGAAAT AAGATGTGAA CAACTCTATC AGGAAAGTCA	6960
AATTAATTTA TAGAAATATT TTAGCAGCCA AGGTGTACTG TTATAGATTC AATTACACTA	7020
TAATTTAGTG TAATTGAGAA AGGAGAAATG ATTGTGATTG ATGTTGGCTA GGTATGTTC	7080
AATGATTCCT ACCGTCTCAA ATCTTGTCAG TAAGGAAAAA TAAATTCCTC AAAAGTAGAG	7140
ATTACAAGGC TTGTTTAAGA AAGAATTCAA AGACCTTGAC AAATAAAAAA AAAATGGTTA	7200
TTATAAAAAA TGGTCTGAAA TAGATGATGA TACTTTTCGA AAATCTCTTC AAATACGTCA	7260
GCTCAGCTTT GCCTTGCTGT GTTTTGAGCA AGCTACGGTT AGCTCCGAG TTTGATTTTC	7320
ATTTACTAGA AATGAACTG ATGAGAGATA TCAGTAGACA TTTGAGTCAG GATATTATGG	7380
AAAAATGATA AAAGAGCTCG TGAGATTGGC ATATCAGACT ACTAAAGTAT TGAGTTTGTT	7440
AGGATTTTAG CGACTAGTTA GCTGGGAAAG GAAGATATTT GTGACAAATA ATAACTGTA	7500
TTCGTTGATA GAATTTAGAA ATAAATATA TGAAGAATTA GAACTTTCCA GAAGTGATT	7560
AGCGATTTTA CTATGTGCCA TGCTTATCGC CTCTATCGGA TTAAATATGG ATTCGACTCC	7620
CGTGATTATT GGAGCCATGT TAATCTCTCC TTTGATGACA CCTATTCTGG GAGTGGGGCT	7680
CTCTCTAGCT ATATTGATT TTAAATTGTT AAGAAAATCT TTTAAATAT TAGCTATTCA	7740

819

AATTCCTGCC AGTCTAATAG CTCAACACT TTATTTTAT CTTTCTCCA TTTCGTATGC 7800
 TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTGG GATGTTCTCA TTGCTTTGT 7860
 AGGAGGGATA GCAGGTATCA TTGGTGCTAG GAAAAAAGAG AC 7902

(2) INFORMATION FOR SEQ ID NO: 113:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18627 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCAATA TCGGTCATAG AAATCTTCTC AATCAACTTT 60
 TGGCAATTTT TTTGGTTGAT AATACGAGGA ATTTGGTGAT TTTTCTTGAC GATAGAAGTT 120
 TCAGCGACCA TCATTTTGA ACAGTGATAG CACTTGAAAC GACGCTTTCT AAGTAGAATT 180
 CTAGTAGGCA TACCAGTTGT CTCAAGGTAA GGAATCTTAG ACGGTTTTTG AAAGTCATAT 240
 TTCTTCAATT GGTTCGCA CTCAGGGCAA GATGGGCGT CGTAGTCCAG TTGGCGATG 300
 ATTTCTTGT GTGTATCTT ATTGATGATG TCTAAATCT GGATATTAGG GTCTTTAATG 360
 TCTAGTAATT TTGTGATAA ATGTAATTGT TCCATATGAA TCTTTCTAAT GAGTTGTTG 420
 GTGCTTTTC ATTATAGGTC ATATGGGACT TTTTCTTAC AATAAAATAG GCTCCATAAT 480
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 CAAGGGATTT TTCTTTTGT TCTGCTCCTT TTTTGATATA ATAGTTCTAT GTTAAATCA 600
 GAAAAACAAT CACGTTATCA AATGTTAAAT GAAGAATTGT CCTTCCTATT GGAAGGCGAA 660
 ACCAATGTTT TGGCTAATCT TTCCAACGCC AGTGCTCTCA TAAATCAGG TTTTCCTAAT 720
 ACCGTATTTG CAGGCTTTTA TTGTTGCGAT GGAAAGGAAT TGGTTTTAGG CCCCTTCCAA 780
 GGAGGTGTTT CTTGCATCCG TATTGCACTA GGCAAGGGTG TTTGTGGTGA GGCAGCTCAC 840
 TTTCAGGAAA CTGTTATTGT TGGAGATGTG ACGACCTATC TCAACTATAT TTCTTGTGAT 900
 AGTCTAGCTA AAAGTGAAAT TGTGGTGCCG ATGATGAAGA ATGGTCAGTT ACTTGAGTT 960
 CTGGATCTGG ATTCTTCAGA GATTGAGGAT TACGATGCTA TGGATCGAGA TTATTTGGAA 1020
 CAATTGTGCG CTATTTTGCT TGAAAAGACA GCATGGGACT TTACGATGTT TGAGGAAAAA 1080
 TCTTAATGTA TCAAGCACTT TATCGAAAAT ATAGAAGTCA AAACCTCTCC CAGTTAGTTG 1140
 GTCAAGAAGT TGTGGCTAAG ACTCTTAAAC AAGCGGTGGA GCAAGAGAAA ATAAGTCACG 1200

820

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CACAGGATAT TAAGGAACAT ATTCACTATA TCTTAGAAAA AGAAAATATC AGTTCTGAAC	1680
CAGAGGCTGT GGAAATCATT GCCAGACGGG CGGAAGTGG AATGCGGGAC GCCTTGCTTA	1740
TTTTGGATCA AGCCCTGAGT TTGACACAGG GAAATGAGCT GACGACTGCT ATCTCTGAAG	1800
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CTCGTTTGT GACCGATCTT TTGCACTATT TAAGAGACTT GTTAATTGTT CAAACAGGGG	1980
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CCGTCGAAAA TCCTGATTTA GCACGTCAA ATTTAATTG TTTGCAGAAAT GCCTGGGGAG	2400
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TGAAACGAGA CAATCTCAAT ACCATGTTTG GTAATATCCT CAGTCAGGCG GCAGGTTTTT	2580
CACCTGAGAT TTTAGCTATT TCCATGGAGG AATGGAAAGA AGTTGCGGCA GCCTTTTCAG	2640
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TACTCTTTAG AAATTTCCGA GTCAGTTATG TGATGGGCAA AATCGTTGAT GTCATCGATC	2940
AGCATTTTAA TAGGAAAGAC TAGCCCTCAG CTTCCAGACA AAATCAAAGC CTTTTAGGCT	3000

821

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AGACGTTTTT CTAGTAAGTA CTGTAAAAGT TTTGAAAAAG AAAGGAACTA TCATGTCAGT	3120
ATTAGAGATC AAAGATCTTC ACGTTGAGAT TGAAGGAAAA GAAATTTTAA AAGGGGTAA	3180
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GACTCTTTCT GCCGCTATCA TGGGAAATCC AACTATGAA GTAACATAAG GTGAAGTTTT	3300
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TGTGTCTAAA GGTGTCAATG CCATGCGTGG TGAAGTTTTT GGTGCTATGA TCATCACTCA	3720
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TGCAAGTATT GACTGGGCTA TCGGTGTCAAT GAACGAAGGA AATGTCGTTG CTGATTTTGA	4680
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TCTTGGTGA TTCTGCAAAA ATTGGACAAA CTTGCTTGC CAAGGTAGCC CCACTCAAA	12960
GCGCTATCGT TATCACTAGT CAAGGGCATG AGCTCTTGCA GGTATTAAAG GAGAAAACGG	13020
AGGTAATAGA AGTATGATTT ATACAGTCAC ACTCAATCCA TCCATTGACT ATATCGTTTCG	13080
TTTGACCAA GTCAAAGTTG GTAGTGTCAA TCGTATGGAC AGTGATGATA AGTTTGCTGG	13140
TGGGAAAGGA ATCAATGTCA GCCGTGTCTT GAAACGTTT AATATACCAA ATACAGCGAC	13200
GGGATTTATC GGTGGCTTTA CTGGTAAAT TATCACAGAT ACTTTAGCAG AGGAAGAAAT	13260
CGAGACACGT TTTGTCCAGG TGGCAGAAGA TACTCGTATC AATGTTAAAA TCAAAGCAGA	13320
CCAAGAAACA GAAATCAACG GAACGGTCC AACTGTTGAA TCGGTTTCAGC TAGAAGAATT	13380
GAAAGCTATT TTATCTAGTC TGACAGCAGA AGATACAGTT GTCTTTGCAG GTTCAAGTGC	13440
TAAAAATCTA GGCAATGTTA TCTATAAGGA TTTGATTTCC TTGACGCGCC AGACTGGTGC	13500
GCAAGTGGTC TGTGACTTTG AAGGACAGAC CTTAATTGAT AGTTTGGACT ACCAGCCTCT	13560
TCTTGTAATA CCAACAATC ATGAACTTGG AGCGATTTT GGGGTAAAC TCGAAAGTTT	13620

AGATGAAATT GAGAAATACG CTCGTGAGTT ACTGGCTAAG GGTGCTCAAA ATGTTATTAT	13680
CTCTATGGCT GGTGATGGTG CCCTTCTTGT CACATCTGAG GGAGCTTACT TCGCTAAACC	13740
AATCAAAGGA ACAGTCAAAA ATTCAGTTGG AGCTGGTGAT TCTATGGTTG CTGGATTAC	13800
AGGTGAATTT GTCAAATCAA AAGACGTAGT AGAAGCCTTC AAATGGGGAG TGGCTTGCCG	13860
AACGGCAACT ACCTTCTCAG ATGACTTGGC AACGGCGGAA TTTATTAAAG AAACATATGG	13920
AAAAGTTGAG GTAGAAAAAC GATGAAATTT CAAGACCTAT TGAGAAAAGA TGTCATGTTG	13980
CTAGATTTGC AGGCAACTGA AAAACAGCT GTCATCGACG AGATGATTAA AAATTTGACA	14040
GACCACGGTT ATGTAACAGA TTTTGAAACA TTTAAAGAAG GAATTTTGGC GCGTGAAGCT	14100
TTGACTTCTA CTGGTTTGGG TGATGGAATC GCAATGCCTC ACAGCAAAAA CGCTGCTGTC	14160
AAAGAAGCGA CAGTTCTATT TGCTAAGTCA AATAAGGGTG TTGACTACGA GAGCTTGAT	14220
GGACAAGCAA CTGACCTCTT CTTTCATGAT GCAGCTCCAG AAGGTGCCAA TGATACTCAC	14280
TTGGCAGCCT TGGCAGAATT GTCTCAATAC TTGATGAAAG ACGGTTTTCG AGACAACTT	14340
CGTCAAGCAA CATCTGCAGA CCAAGTTATC GAACTTTTCG ACCAAGCTTC AGAAAACT	14400
GAGGAACCTG TTCAAGCACC TGCTAATGAC TCTGGTGACT TTATCGTAGC TGTTACAGCT	14460
TGTACAACAG GTATTGCCCA CACTTACATG GCCCAAGAAG CCCTTCAAAA AGTAGCTGCT	14520
GAAATGGGGG TTGGTATCAA GGTGAAACC AACGGTGCTA GCGGTGTTGG AAATCAACTA	14580
ACTGCAGAAG ATATCCGTAA GGCTAAAGCT ATTATCATTG CAGCAGACAA GGCCGTTGAA	14640
ATGGATCGAT TTGATGGAAA ACCATTGATC AATCGTCCAG TTGCTGACGG TATCCGTAAG	14700
ACAGAAGAGC TAATTAACCT GGCTCTTTCA GGAGATACTG AAGTCTACCG TGCCGCTAAT	14760
GGTGCCAAAG CTGCAACAGC CTCTAACGAA AAACAAAGCC TTGGTGGTGC CTTGTACAAA	14820
CACTTGATGA GTGGTGATC TCAAATGTTA CCATTTCGTTA TCGGTGGTGG TATCATGATT	14880
GCCCTTGCCCT TCTTGATTGA CGGTGCTTTG GGTGTTCCAA ATGAAAACCT TGGCAATCTT	14940
GGTTCTTACC ATGAGTTAGC TTCTATGTTT ATGAAAATTG GTGGAGCTGC CTTTGGTTTG	15000
ATGCTTCCAG TCTTTGCGGG TTATGTTGCC TACTCTATTG CTGAAAACC GGGTTGGTA	15060
GCAGGTTTCG TGGCTGGTGC TATTGCCAAA GAAGGTTTTC CCTTTGGTAA AATTCCTTAT	15120
GCCGCAGGTG GTGAAGCAAC TTCAACTCTT GCAGGTGCTT CATCTGGTTT CCTAGGTGCC	15180
CTTGTGGTGC GATTATCGC AGGTGCCCTG GTTCTTGCCA TCAAGAAATA CGTTAAAGTT	15240
CCTCGTTTAC TCGAAGGTGC TAAATCAATC CTTCTATGTC CACTTCTTGG AACAATCTTG	15300
ACAGGATTTG TTATGCTAGC TGTGAATATC CCAATGGCTG CAATCAACAC TGCTATGAAT	15360

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GACTTCCTAG GCGGTCTTGG AGGAGGTTCA GCTGTCCTTC TTGGTATCGT CCTTGGTGGG	15420
ATGATGGCTG TTGACATGGG TGGACCAGTT AATAAAGCAG CTTATGTCTT TGGTACAGGT	15480
ACGCTTGCAG CAACTGTTTC TTCAGGTGGT TCTGTAGCCA TGGCAGCAGT TATGGCTGGA	15540
GGAATGGTGC CACCACTTGC AATCTTTGTC GCAACTCTTC TTTTCAAAGA TAAATTTACT	15600
AAGGAAGAAC GTAACCTCTGG TTTGACAAAC ATCATCATGG GCTTGTCATT TATCACTGAG	15660
GGAGCGATTG CATTGGGTGC CGCTGACCCA GCTCGTGCGA TTCCAAGCTT CATCCTTGGT	15720
TCAGCAGTAG CAGGTGGACT CGTTGGTCTT ACTGGTATCA AACTCATGGC GCCACACGGA	15780
GGAATCTTCG TTATCGCCCT TACTTCAAAT GCTCTCCTTT ACCTCGTTTC TGTCTTGGTA	15840
GGAGCAATCG TAAGTGGTGT GGTTTATGGT TACCTACGCA AACCACAAGC ATAAAAATA	15900
GAAAAATGAA AAGATTGGAC CGTTTGGTGC AGTCTTTTTC TCTTCCCGAA ATGCCTGTGA	15960
AATATGGTAT AATAGAAGAA TGGCAAACAA GAATACAAGT ACAACAAGAC GGAGACCGTC	16020
TAAAGCAGAA CTGGAAGAA AAGAAGCGAT TCAACGAATG TTGATTTTCTG TAGGAATTGC	16080
GATTTTATTG ATTTTCGCAG CCTTCAAATT AGGGGCTGCA GGTATAACCC TTTATAATTT	16140
AATTCGCTTG CTAGTGGGTA GCCTAGCTTA TCTGGCGATA TTCGGCCTAT TAATCTATCT	16200
CTTCTTTTTC AAGTGGATAC GAAAACAGGA AGGACTCTTA TCTGGCTTTT TCACCATATT	16260
TGCTGGCTTA CTCTTGATTT TTGAGGCCTA CTTGGTTTGG AAATATGGTT TGGACAAGTC	16320
CGTTCTAAAA GGGACCATGG CTCAGGTGTG GACAGATCTG ACTGGTTTTC GAACGACTAG	16380
CTTTGCTGGA GGGGGCTTGA TCGGGGTGCG TCTTTATATT CCAACAGCCT TTCTCTTTTC	16440
AAATATCGGA ACTTACTTTA TTGGTTCTAT CTTGATTTTA GTGGGTTCCTC TCCTAGTCAG	16500
CCCTTGGTCT GTTTACGATA TTGCTGAATT TTTCACTAGA GGCTTTGCCA AATGGTGGGA	16560
AGGGCACGAG CGTCGAAAAG AGGAACGCTT TGTCAAACAA GAAGAAAAAG CTCGCCAAAA	16620
GGCTGAGAAA GAGGCTAGAT TAGAACAAGA AGAGACTGAA AAAGCCTTAC TCGATTGCCC	16680
TCCTGTTGAT ATGGAACGG GTGAAATCTT GACAGAGGAA GCTGTTCAAA ATCTTCCACC	16740
TATCCAGAA GAAAAGTGGG TGGAACCAGA AATCATCCTG CCTCAAGCTG AACTTAAATT	16800
CCCTGAACAG GAAGATGACT CAGATGACGA AGATGTTTCTG GTCGATTTTT CAGCCAAAGA	16860
AGCCCTTGAA TACAACTTC CAAGCTTACA ACTCTTTGCA CCAGATAAAC CAAAAGATCA	16920
GTCTAAAGAG AAGAAAATTG TCAGAGAAAA TATCAAAATC TTAGAAGCAA CCTTTGCTAG	16980
CTTTGGTATT AAGGTAACAG TTGAACGGGC CGAAATTGGG CCATCAGTGA CCAAGTATGA	17040
AGTCAAGCCG GCTGTTGGTG TAAGGGTCAA CCGCATTTC AATCTATCAG ATGACCTCGC	17100
TCTAGCCTTG GCTGCCAAAG ATGTCCGGAT TGAAGACCA ATCCCTGGGA AATCCCTAAT	17160

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CGGAATTGAA GTGCCCAACT CCGATATTGC CACTGTATCT TTCCGAGAAC TATGGGAACA	17220
ATCGCAAACG AAAGCAGAAA ATTTCTTGGA AATTCCTTTA GGAAGGCTG TTAATGGAAC	17280
CGCAAGAGCT TTTGACCTTT CTAAATGCC CCACTTGCTA GTTGCAGGTT CAACGGGTTT	17340
AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGCTAGCATT CTCATGAAGG CGAGACCAGA	17400
TCAAGTTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT	17460
TCCCCACCTC TTGATTCCAG TCGTGACCAA TCCACGCAAA GCCAGCAAGG CTCTGCAAAA	17520
GGTTGTGGAT GAAATGGAAG ACCGTATGA ACTCTTGCC AAGGTGGGAG TTCGGAATAT	17580
TGCAGGTTTT AATGCCAAGG TAGAAGAGTT CAATTCCTAG TCTGAGTACA AGCAAATTC	17640
GCTACCATTC ATTGTCGTGA TTGTGGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA	17700
GGAAGTGGA GATGCTATCA TCCGTCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT	17760
GATTCCTGCA ACTCAGCGTC CATCTGTTGA TGTCATCTCT GGTTCGATTA AGGCCAATGT	17820
TCCATCTCGT GTAGCATTTG CGGTTTCATC AGGAACAGAC TCCCGTACGA TTTTGGATGA	17880
AAATGGAGCA GAAAACTTC TTGGTCGAGG AGACATGCTC TTAAACCGA TTGATGAAAA	17940
TCATCCAGTT CGTCTCCAAG GCTCCTTTAT CTCGGATGAC GATGTTGAGC GCATTGTGAA	18000
CTTCATCAAG ACTCAGGCAG ATGCAGACTA CGATGAGAGT TTTGATCCAG GTGAGGTTTC	18060
TGAAAATGAA GGAGAATTTT CGGATGGAGA TGCTGGTGGT GATCCGCTTT TTGAAGAAGC	18120
TAAGTCTTTG GTTATCGAAA CACAGAAAGC CAGTGCCTCT ATGATTTCAGC GTCGTTTATC	18180
AGTTGGATT T AACCGTGCGA CCCGTCTCAT GGAAGAACTG GAGATAGCAG GTGTCATCGG	18240
TCCAGCTGAA GGTACCAAAC CTCGAAAAGT GTTACAACAA TAAAAAATA GCTTCTTTCC	18300
AAGTTGGAG GGAAGCTATT TTAGTGGCTA TTGATTGCTT TTATTTCTG AAGTTGGCGC	18360
ATTGACTGT TTTTCGTTT CAGTAGCAGG TTTACTTGAA GCAGGAGTAG AAGAGTCCTG	18420
AGTTGCTGTT TTCTGATCTT CTTTTTCTC TTCCTTGACG CTAGATTTTG GTGTTTCTC	18480
TTGCTGTGTT TTTTCTTGAC TAGTGTTAGT CTCCTTAGTT GGACTGGTGT TTTCTTAGG	18540
GGATTCCTTT TGGATTTCTT TGACAATGGT TGTCGTCTGG CTTGTCGTAG GTTCTTTTTT	18600
AATATTTTGG TTATTATCCA AGGCGTT	18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2560 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAATACGT TACCTTGCTT CTGCACGTT AGCAGGTAAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CGACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTTCAGCAGGT AGTTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTC AAATCCAGAT GTTCCTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACA CGGAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGGT TCGCCAAAAA TGGGGCTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGGTATGGGA GCAATTCTTG AGACACAACG	420
TGAACTTCGT GAAGTCTTGA ATGATGGTGT GAAACCACGT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAAGA AACATTATCC TATCGCCTTT AACGCTCTTC CACAAATTGA	540
TGTTTCACT GATAATGATT ACACGTACGA AGAGATGAAG ATGACCAAGG AACTAAGAA	600
AATTATGGAA GATGATAGCA TTGCAGTATC TGCAACATGT GTGCGTATTC CAGTCTTGTC	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAGTG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCCTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAATCTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCGCG TGATACCTTT GTTGGTCGTA TCCGTAAAGA	840
CTTGGATGCA GAAAAGGAA TTCACATGTG GGTGTTTCA GATAACCTTC TCAAAGGTGC	900
TGCTTGGAAC TCAGTTCAGA TTGCTGAAAC TCTTCATGAA CGTGGATTGG TTCGTCCAAC	960
AGCCGAATTG AAATTGGAAT TAAAATAGTC ATATCGTTTA GGAGTTCAGA TGAATCCTT	1020
CTTTGAAATA GAGAGGTGTT TTCGTGTCTT ATCAAGATTT AAAAAATGT AAAATCATTA	1080
CAGCCTTTAT TACCCCTTC CATGAGGATG GTTCCATTAA CTTTGATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTGGCC CATCATACGG ATGGAATTCT TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TCGGGCTGTA CAAAAGGTTG	1260
TCAATGGAGC CGTTCCTTTG ATTGCGGGTG TAGGTACTAA TGATACGCGT GACTCTATTG	1320
AGTTTGTCAA AGAAGTAGCG GAATTGGTG GTTTCGCAGC TGGGCTTGCT ATTGTTCTT	1380
ACTACAACAA ACCTTCTCAA GAAGGGATGT ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTCGAA TTGACTCCAG	1500
AAACCATGCT TCGCTTGGCT GACCATCCAA ATATTATCGG TGTCAAAGAA TGTACTAGCT	1560
TGGCTAATAT GCCTTACTTG ATTGAGCACA AGCCTGAAGA GTTCTTGATT TATACAGGTG	1620
AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGGGGCGGA TGGGGTTATT TCTGTTGCCT	1680

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CTCATACAAA TGGGGATGAA ATGCACGAGA TGTCTACTGC GATTGCAGAA AGCGATATGA	1740
AGAAAGCCGC AGCAATTCAG CGTAAATTCA TTCCTAAGGT TAATGCTCTC TTCTCTTATC	1800
CAAGTCCTGC TCCAGTTAAG GCAATTCTTA ACTATATGGG ATTTGAAGCT GGACCCACTC	1860
GTCTACCTCT TGTCCAGCA CCAGAAGAAG ATGCCAAACG CATTATCAAG GTTGTCGTAG	1920
ATGGCGACTA CGAAGCAACT AAGGCAACTG TAACAGGGGT CTTAAGACCA GATTACTAAT	1980
AAAGACAATA AAATCCGGCT CTTTGTCAAC TGTAGTGGT TGAAGTCAGC TAAGCTCGAG	2040
AAAGGACAAA TTTTGTCTT TCTTTTGA TATTGAGAGC GATAAAAATC CGTTTGTGA	2100
AGTTTTCAAA GTTCCGAAAA CCAAAGGCAT TGCGCTTGAT AAGTTTGATG AGATTATTGG	2160
TCGCTTCCAA TTTGGCGTTT GAATAGGGTA GTTGAAGGGT GTTGACGATT TTCTTTTGT	2220
CCTTTAGAAA GGTTTTAAAG ACAGTCTGAA AAATAGGATG AACCTGCTTC AGATTGTCCT	2280
CAATGAGTCC GAAAAATTTC TCCGGTTCCT TATTCTGAAA GTGAAACAGC AAGAGTTGAT	2340
AGAGCTGATA GTGATGTTT AAGTTTGTG AATAGCTCAA AAGCTTGTTT AAAATCTCTT	2400
TATTGGTTAA GTGCATACGA AAAGTAGGAC GATAAAATCG CTTATCACTC AGTTTACGGC	2460
TATCTGTGTG AATGAGTTTC CAGTAGCGCT TGATAGCCTT GTATTGCGGA TTTTCGATGA	2520
AACTGATTCA TGATTGGAC ACGCACACGA CTCATAGCAC	2560

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11303 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT CCCTTGCAAT CAGTTTATGG GACAAGCACC CGGCAGCGCA GAGGAAATCA	60
ACGCCTTCTG TAGCCTACAT TTTCAAACCA CCTTCCCACG TTTTGCCAAG ATTAAGGTCA	120
ACGGTAAGGA AGCAGACCCT CTCTATGTCT GGTTACAAGA CCAGAAATCC GGCCCACTAG	180
GAAAACGAGT CGAATGGAAT TTCGCTAAGT TTCTCATCGG TCGAGATGGG CAAGTCTTTG	240
AACGCTTTTC TTCAAAAACA GACCCAAAAC AAATTGAAGA GGCATACAA ACTCTACTAT	300
AATTCACAA CTCACTATGA TTAGGTTTCC TTAACTGA TGAATAGTGA GATTTTTTGA	360
TGGGCTTTGA CTTAAATAGA AAAACACCCC ATGATATGAA ACATGAAGTG TTGTAAAGTC	420
TATGTTGTAG GTGCTTATTT CACAATTTCa ATGTGACCAG TGATAACGAA TACCATACAG	480

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AATCTTCATA TACACTAAAC AAATGACTTT CTAATTATTT CAATTAGTTT TGGCTAGTAA	540
ATATCATTTTC CAACAAACGC CCTCTCAATT CTTATCCTG ATGATGCAAG ATATTCATTA	600
AGTCATGAGA GTTTTTCGCA TTGATGAATT GATTTAACAA TCTATCTTTT AATTCATATG	660
GAAGAGAAGC TGTCTTTAGT AGTCTAAAAA CTTCTGTCATT TAAAGATGTC CTTTATTAT	720
CTTTCCATTTC AAATTTAGCT GTATCATTTCT TATTTGGCAA TTCAATTATA GACACATTTCG	780
TTCCCTTAAA ATGAATTCTA TGTTTTCTAT TGCTTGGAAC GATACTAGAA TCTCCTTGTA	840
ATGCTAACTC TACCATTCCC ATTTCCCAAT CGATTGATAA TCTTGTTTTA TATCTTTGAC	900
CATTTTGATC TTCAAGCATT TCAAAGAAT GTTGTTTTCC TGGGAATACA TACCAATCTA	960
CAACTTCAGG TAAATCAACA CCCATACCTA TCTCAGAACC AACCAAGGGA ATGATTGCAC	1020
CACTTTTTGC AAACACAGGC GTAGTCGAGA TGTCCCTATA AACACTTAAC TTCACACCAC	1080
CTGTGTATTT TTTCTCTGAA AAGAAGTCAT ACCATTTCACC TTCAGGGAAC CATACATCTA	1140
CTTTTGCAGA TTGGAATGTC AAATCCATCT TTTCTACAAT GGGAGCCACC ATCAGTTCTG	1200
TTCCAAAAAA GTATTGGTTT GGAACATTAT AGCTCTCATC ATTCTCTGGA TAGAAATAAT	1260
AGATTGGACT GATTAATGGG GCACCTTCCT CATGTGTCTG TACATTTCATG GTATATAGAT	1320
AGGGAATCAT CTGATGTCTC AAACGAAGGT ATTTCTTCAT AATCTTAGAT GTTGTTCCTG	1380
AAAAAAACCA AGGTTCTTTA CTATTAAAG GACTTCTAGA ACTATGTAAT CGAGTAATCG	1440
GACTAAAAAC ACCAAACTGT AGCCATCTAG TTTGTAGCTC TTCGTCATAA TCCCCCAACA	1500
TATGTCCACC GATATCATGA CTCCACCAAC TATAACCGAT ATTAGATGCT GTCGCTGTAA	1560
AATAGGGTTG AAATCTTAAG GAATTCACAC TAATAATAGT ATCCCCTGAA AAACCAACAG	1620
GGTAGCGGTG ACTACCAGGA CCTGCATATC TTGATAAAAT CAAACCACCT TCTGCATTTT	1680
TACAACTATC CTGATAGTGA TAATGGTTTA AAAGCCAAAG TGGATCTAGC ATACCTTGTG	1740
TCCCTTGTG CCAGTCAATC CACCAAAAAT CTACTCCCTG CTTTCTAGT TCATAATGAA	1800
CATCTTTAAA GTAGGCTTCC CTAAAAGAGG GATTAAAAAA ATCAAAAATA GCAGGTTCCT	1860
CTAGTTCTAC ATTTAACCCC AACCGTTTGT CGATTTGAGG ATAAGCTTCT TCATAAGCCC	1920
GTATCCCATC AGCAGGATGG ACATTTAAGG AGAGTTTGTG CTTTCTATCA TGAAGTTGTT	1980
GCAATAACTG TTCTGGATTT GGTATTAAGT TTCTATTCCA ACTATATCCT GTCCAGCCAC	2040
TTCCAAAGCG AGCTGGAATG TCAGTTATAT GCCAATCCAT ATCTAACACA CCGATAGATA	2100
ATGGAATTTT CTCTGTTTCA AATCTGTCTA TTAAATCCAA GTATTCATCC GACGTATAAG	2160
GCCAATATCT ACTCCACCAA TTGCCTAAAG CATATCTTGG CAACAAGGGT GTTGAACCAG	2220
TCAAATGTA AAAATCTCTG ATTGCTCCTC TATAATCATG CCCATAGGCA AAGAAATACA	2280

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GGTCAATTGG ATTTTCTCTC TCAATATAAC CAGATTGTTT ATCCCAAATA AATCCTTGAG	2340
AATCATCCAA TAAGGCTATA CCATTTTCGGC TAATAATTCC ATCTTCTAAC GAGATTGCTC	2400
CATCTGCCTT ATCCAGAGTC CGAGCTGTTT CTTTAAACGT TTCAATAGAT TCACCAAAAT	2460
ACCAGCGACT ACCATATACG GCAAAATTTC CTTTAAATTC TATAAATAAA TTTTCGGCGT	2520
TAAATTCTCC TTTATTAAAG TGCAGATGAA AATAGTCCGT CATAATATCT AGTACGTTTG	2580
ATGTCTCGAT ATAATCTAAC GAAATTGGC CAAAATCTCT ATTATAGATA AGTTGTGTCG	2640
TTCTATCCTC AAAACTTCCA GTTTGAGAGT ATTCTAACCT TACTAGCTTG TCTGTTAATA	2700
CAGAGATTCC ATAAACTCTT CCCTTAAAAA TTTTCAATTT GTTTTCCTCC TTTTATGTA	2760
GCATAAAAC AGAACGCACC ATTTTGTATG CGTTTTCAT TATTCTGAAT GCAATGTTCT	2820
ATCTGTGATA TCTATGACAA ATAATAGTCA ATTGAAAAA TGCAGTGGAC AAAATATCTT	2880
TTAACAAACC AAGAGTTTAT TAAAGAGTTA TCACCTTTCA ACTTTTCTAA GCTTATGCAG	2940
TTGTGAAACA AACTACTTTT AAATATTTAA CTAAGATAGG ATTGATAAAT AATTCAAAC	3000
TCTTACTAGC AATCATACGA TATTCAGCT CACGTGCTTT TTTCTTCTCT GCTTATTCTT	3060
TAGAACTGAA GAACCCGAT CGGTATATAA ATTATCCGA TCAACATAGT CATAAGATTC	3120
ATAACAGTTG CGCTTCATTA AGTCATCCCC AGAGCAAGAG CTTCATCTCG TAATTTTCA	3180
ACATCACTAA CCGTAGGTCG CCATCCTTCA ATCATATTTG TACTTAAAGC ATACCAAACA	3240
CTCTTAAAAA CGGATCGGTT TTCAAAGCT ATTCCCATGA TTGTCATCTT TTCTTTATCT	3300
ATATCTAAGG ACATATGCTA CCTCCTTTAG ATACATTATA CCATGTTTCT CTGTAGCTTT	3360
TAAAAATTTT ATTTTGTGTTG TCATATCTAA GTTTTCAGCA CGCTTATCCT ATTTTATAAG	3420
CCTCAAACCC AAATATAAAA CGCATTCCTT TTGCTTTTTT ACTATTGTAT CGTATTCTAC	3480
GATAACATAC TTTACTTTAT TGTTTTTTAA AATAACAGCA GTTCCCTGTT TATCAACTAT	3540
TCGAACTACT TTCTATTTTG CTTCATACCC TACATAGCGA AAAAATATGA AAAAGCAGAG	3600
AAGAATATCT TAAAAAGACC TCTTCACTGC TAATATTAAC ACTCATTATT TAACTATAT	3660
GGATTCTATC ATCGAGTATA CTTTTTACT TATTAGATAC CTTGCTCTTC TTTCACCAAT	3720
TTTTGATCAT ATACACGGAT GAATGGAAGA TAGACTAGGA ATGCTGCAAA TGCACATACT	3780
AGAGCAACTA ATACAGCTCG AAGATCTGCT GTCCCTAAGA AAGCTCCAAT CCCTACTGGA	3840
GTTGGCCATG GAACCTGTC GATAATTGGC TTAATAAAGT TTAGAGAATT CGCTACGTAA	3900
TAAATAGTAG CAGTAACCAT TGGTGCTAAA ATAAATGGTA TAGCCAAGGC TGGATTATAG	3960
ATAATAGGTA ATCCAAAAAT TAATGGTTCA TTAATATTAATAAATAAGGCTGG AACTACAGAT	4020

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GCTCGTCCTA TTGCTTTAAG CTGTTTCAGAT TTAGAGGCAA AAGCAATATA TAAACATAGT	4080
CCTAAAGTTG CACCAGAACC ACCTGCAATT ACAACATAT TAGAAAATTC ACCTGCAACA	4140
GCGAAGTGCC CGCCAGCAGC ATTTTCAGCC ATGTTAGCAA GAGCAATTGG ACTAACAAAT	4200
GCAAAAACAA TGTTGCGACC GTGGATACCT ACAATCCAAA GTAGTTGAGT CAATAGATAA	4260
ATAATCATT AACAATCCA CGAATTAGTC AGATTGGATA CAAAACCAA TGGAAATGCA	4320
ATGACTTTAA AAATATCTGT TCCCATGTCT ACAAGAAGAC CGTTGATAAA GATAACAACA	4380
AATGCAACAA CAAATCCCGG AACCAAGCG GTAAATCCAC GAGAACTCC TTCTGGAACA	4440
GCTTCAGGCA TTTTAATAAC CCAATTATGT TTAACACACA TACGATAAAT AAGAACAGTC	4500
ACAAATGCCA TAATGATTGC GGTAAAAATC CCTGTTGTCC CAAAACGTGC GACTACATTT	4560
CCCATTGCCC ATCCATCTGC AATTACTGCA CCTTCTTTTA GACTTGTCAC AGTCTTCATC	4620
ATTCCACCAT CAAAATGAT TTGCGGTACT GTCATGACAA AAGCCATCAA GGCAAGCAAG	4680
GCACCATTA GAGGATTCAT ATTGAGTTCT TCTTCCTCTG CATAAATTTT TGTCAATTCA	4740
TATGCAAGTG ATAGAACGAA ATAAAGAGAT AGAGAACCCA TAGTCGCATA GTTTGCAACC	4800
ATGTAAAGTG ATGTGAATTT ATCAAATGAA GCAGAGAAAA TATCTGCCAC AATTGGCCAA	4860
AATGAGAAAG CTGTGGCAA AATACTGAAT ACCAAAAACA TTGATCCTAC AATAGTAAAT	4920
GGTACAGCAG CCATACCTGC AGCCGTGATA GCACGTACTA CTTTAAACTG AGCAAGTTTG	4980
CCCATTGGTC CCATAACATG GTTTTCAAGA AAACCAAACA ACCCGTTTTG TTGATCCATA	5040
AATAGACCTC CTTAATAAAA CATAATAATT TTTACTTTCT AAAGACTAGT TTCAAATACA	5100
AATTATACTA GATCAGGATT ATAACTAAG TGAGTTCTTT TCCAATTGGA CAAATGTTG	5160
ATAAGCCTTA TCTGTTGCTT TATAAATTTT TTTAATTCCT CTAATGTCTA ACAAACCTAG	5220
AACTAAACCT AATAGAAGAA CTACAAAAAC AAATAAACGT GCTACTTGGT TATTTTCAAA	5280
AATCGGAAAA AGATTCTTAA ACCAACTTGT CCAAGTTAAA ACAAGTAATC CTATTGAAAT	5340
AAGCATTTGT ATTCTAACAA ACATTAGTGT TATCCCAAC TTTCTTTCC TATTTCCATA	5400
AAGTTTAAAT TGTTCACAG TTGCTAAAAT AGAAAATACT ATGAGCATAA TGGGGAAAAT	5460
AATAATAGGC GAGGGACTAA TAACTGACT CAAAAGCCAA TAAATATTCC CAAAAAGAA	5520
GAGTGCTATT GAATAACGTA GAAGAAGATA TCGATTGAAA AAAGTATTAG TTAGAGCCAT	5580
CTCTCGACGT TGTGTTCAA TCTTTTGTG TTCTTTTTTA TCCATATCAT TTCCTCCTTA	5640
TATAACAACA CATATTTAGT TAACTTTCTT ATAAAGAGCT AACATTTCTT TTGCTACTTC	5700
TAATAATGTC ATAGTGGTCA TTAAATGATC TTGAGCATGT ACCATGATAA TTTCAATTTT	5760
AATTTCCACT CCACTTGCCT ATTCTTGCAA GAGTTTGGTT TGTGCATGAT GCGCTTCAAG	5820

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AATTATCTCA TTTGATTGAT TTAATTTACT TTCTGCATCA TCAAAACTAC CTTCTCTCAT	5880
TTTTGCAAAT GCTTCATGTA TTTCTGACCT TGCATTTCCC GAATGCAGGA TAATTTCAAA	5940
TGCTGCAACC TGCAGTTCCT CTTGATTTCAT ATAAACCTCC TATTTTATCT TCTCAAATAT	6000
GTTAATAAAA TCTTCAAAGT TATTGCAAGA TATTAGCTGA TTTTGCAATT CATCATCTCTC	6060
TGTCAGAGAG ACTATCTTTT TAGTCACAGT TGCCAAACCT TCGTTCCCAT ATATTGATGG	6120
AGATAGAAGA AATACTAGCT GGACATGTGA ACTTTGATTA TCCCAGAGTA ACGAATCTTT	6180
ACAAATTGCA ACCGAAACCT TTCCCTCTGT ACCAAAGGGC TGAATAGGAT GCGGAACGTC	6240
AATTTTTCCTA GAAAAACAA CTGAACPTAA TTCTTCGCGC TGTTTAATTC CATAAAGTAA	6300
AGATTGTTCA AACTCATTTG ATTCAACCAAC AGATAAACTC TCAACCATCT TTTCAAGTAA	6360
ATTTACCTTG TCTGATTTCAG TACATATTAA AAGTTTCTCT TTAATAAAAT ACTGTCTAAA	6420
GCCGTTGTGT TCAAAATTGT TAATCTTTGA TGATTGTACA TAACTAGAAA CTTGCATCTA	6480
ATCCATAGCT TTTCTAATCA TTTCCATCTC ATCACTCTTA AGAAACACAC TAACTTTAAA	6540
AACTGGGATT TGAAATATA GATTTGATAA ATCAATAGCT GACACTATAA AATCTATTCC	6600
TTTAAGTTTT TCTTGATTCA ATTATAGTA GCCTATTACA TCAACAACCT CTACTCGCTT	6660
CCCAAACCTC GTTCCAAAC GATTTCTTAA CATTTGGGCT GCACCAAATC CTGTTGCACA	6720
AATAGCAAGA ATATTAACT TAGTACTCTC TTTGCTACGT TCCATAGCAG CTAAAAAGTG	6780
AAGACTTACA TATGCTACTT CATCATCTGA TATTGTCCAC TCCAAGAAGT TGTCCATATT	6840
TGCAAGAATT TCTCTAGTCA TAAAGAATAT ATCACTATAA TTCTGTTTAA TTTCATCTAC	6900
CAAAGGGTTA TTTAAGGTAA TCCGGCTTTC TAAACGTACT TGTAGTGTC AATTAGATGAGT	6960
TATCAATCCT TCAATTAGTT GGAAATCTGA AGAAAAGTTA TACATATCAT CTAATCCTAA	7020
ATTCTGAAAT GTTTTAAATA AAGATTTTTT TAAACTTCT TCAGAAATAT TCTTCTGATT	7080
TTTTTGACAT TGTTGACTCT TAGCTAACAA ATGCAAAGTA ATGTAGTCTA TTTCTTGAAC	7140
TGGAATTTCC TGATTGTGA CTTCTCTTAC TTTAGAAAGA ATTCTTTGGG CAACCTTTCT	7200
CTCTATTGCA TCATCAGTCA TCTGACAGTC TATATTTTTT ATTTCAAATC CGGATTTTAA	7260
ACGAATCACA GACAATGCTA TGTGAACCTC TAAATTCTGT AGTACAAAAT CAGATAGTTT	7320
TAGGTTGGCC TCTTGGCATT CATCCAAAAC AATTCTAGCA AATTCTTCTA ATGGAACAGT	7380
TTGATCAAAA AAGTTAAAT TTACATAGCA ATGTATTGTT TTAATAAAT GATTCTCTAG	7440
GAAATAATTT ATGATAAAAC GTCGTTTATC ACGTTCCTCG CCGAGACAT AACTCCTTT	7500
ATTCGCCCTA CTCTCAATGG ACAAATTATA CTCTGATAAC ATCACTCGTA TCTTTCTGAA	7560

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ATCATGAGAT AATGTTGAAC GACTAACGTA AAGTTCATCA GCTAAATCAT CAAAAAGAAC	7620
TGGAACCTGC TCAAATAATA ATTTATTTAA GATAAATACT AAACGATCAT CACCTTTTGA	7680
AACCGCAGTT TTCGTATAGT CTTCTTCCAG TTCATAAGTT TGTCTAAACT CCTGGTAAGC	7740
GCCTTGATTG TCAAAAAATA TTTGATACCC TTGACCTTGT TTTGAAATCA ACCGGACTCC	7800
TTGAATAATC ATTGTCTTCT CAATTAATTT CAGTACATTA CGGACAGTTC TATCTGAACA	7860
GGATAAATAT TCTGCCAGTT CTTTGCTTGT AACAAAACGT TCCTTATTTT TTATTAAAAA	7920
TTGAAGGATA TCTTCTCTT TAATGTTTAA CACATTCATT CCCTCCTAAA ACGTATGTTT	7980
TCATATATTG AAGCATATTA TACACTTAAA TCAGTTTATA TCAAACTCAA AACAATTTAT	8040
CTTAACCTAA ATATTTATTG ACATTTTCATG TGTTCATCAA ATATTCTCAA GAATCAAAT	8100
AGCCATTTTT TCAATTCCTA TTGGAATAGG AATATAGGCT TGAGGAGGTA TTTGTACAAC	8160
TGGTTTTCTT GCTTTAGAAC CAGCCTCTTC AAATTGCTTA AAGTACATTT TTGTTTGAGG	8220
ACTGACAAGA TACAAATCAA AAGCTGCTGC TGCGATAGCT TTCCTCCTT CAGTAGCACT	8280
AATAGCATCA ACTACAATAT CTTTCCCTTT TCCTTTTAGA AACTCTGTTG TTTCTGTGC	8340
CATAAGTGAT GAAGACATTC CTGCTGCACA AATAATTAAA GCTTTTGCCA TAATATTTTC	8400
TCCTTTTCTT AAATCCAATC AAAGCTGTGC TAAGTTGGCT TATTTGTTAT CTATTTTAT	8460
TATAAAATAA AGCGTTTCCA ATGACAATTC CCTCATTTTC CTAAATGATA TGGAAAAAAA	8520
TTATTTATAC TTCAATTTAT AAAATAAAAT TATTCCTGAG AGTAGAAATG AAACACTATT	8580
TGCTAAAATC AAAGGCAAGT CTCCTATACG AATACCATGA GCAAGCCACA ATGCAATACC	8640
AATAACTTGC ATAACATACA TACCTAGAGC AATAGATCCT GTGTCCTTG TCTTAACATC	8700
ACGAAAAACT TGTGGTAAAA ATGCAAATGT TGTAAAAAT GCTGCAATAC TTCCAATCAT	8760
ATGTCACCTC AATATGCTAA ACAAACCTGAG AATAATCTCA GTTGTGTTAT ACTATTCTAC	8820
TGATTACCGG TTAGATGAAA TAACTTCCTT ATACCAGCCA AAAGATTTTT TCGGGGAACG	8880
ATTATAAATT CCCTTCCCAT TATCATCTTT ATCTACATAA ATAAAGCCAT AACGTTTCCG	8940
CATTTACCGG GTACCAGCTG AAACCAAATC AATACATCCC CATGGAGTAT AACCCATTAA	9000
ATCAACACCA TCTTCAACTA CAGCCTTTTT CATTTACGTA ATATGGGCAC CTAGATATTC	9060
AATTCATATA TCATCATGTA CCATACCATC TGCTGCAACT TGATCTATAG CTCCAAAACC	9120
ATTTTCAACA ATAAAGAGTG GTAAGTGATA GTGGTCTGTA AACCAATTTA ACGCATAACG	9180
CAAACCTTCT GGATCAATTT GCCACTCCCA TTCAGAAGCC TTAACATAAT TATTTTTCAC	9240
TAAATCTTCT GTTTCAGAT AATCAAAATA AGGATTATTT TCACGATGAG AGTCGATAGC	9300
AAAGGACATA TAGTAACTGA AACCAATGTA ATCTACAGTC CCACCAAGTA AATCTTCTTT	9360

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ATCCTGGGCA GTAAATCAA CTGAAATACC TTTTCGTTCC CAATACTTGA AAATATGCTC	9420
AGGATATTTA CCTAAACAT GCACATCAGC AAAATAATAA CGCTTCTGCA TAGCTTTCAT	9480
TGCCATTAAAG ATATCCTTAG GATTGCAAGT AACTGGATAA ATTGGACACA TCGCAATCAT	9540
ACAACCTATT TGAAATCTG GATTAATCTC ATGACCAATT TTTACAGCTC GTGCAGAAGC	9600
AACTAATTCG TAATGTGCTG CTTGATACAT AATTGCTTCT CTATTATCAC CTTCTCATA	9660
TACAATACCT GAGTTAGTAA ATGGTGCAA ATCTTCTGA TAATTCGCTT GATTATTGAT	9720
TTCAATTGAAA GTCATCCAAT ATTTAACCTT ATCTTTGTAA CGTTTAAATA CGACTTCTGC	9780
AAAACGAGCA AAGAAATCAA TCAATTTCTT ATTTTTCCTT CCACCATATT CGGTCACTAA	9840
GTGATAAGGC ATTTCAAAT GAGATAGAGT GATGACAGGT TCAATACCAT TCTTTAAGCA	9900
TTTCATCAAAA AGATTATCAT AAAACTGTAA TCCTTCTTCA TTCGGCTCTA ACTCATCACC	9960
TTTTGGAAAG ATACGTGTCC ATGCAATAGA GGTACGGAAG CACTTGAATC CCATTTTCAGC	10020
AAAAAGTGCT ATATCTTCTT TATAACGGTG ATAAAAATCT ATCGCCTCAT GATTTGATA	10080
ATATTTACCC TCTAAAAC TCCTAAAGTAT TTCACGAGCT ACTCCATGAC GACCAGCAGT	10140
CATAACATCA GCAACACTAA TTCCCTTGCC ACCTTCTTGC CATCCACCTT CAAGTTGATG	10200
AGCAGCAACA GCACCACCC ATAAAAATCC ATCTTTAAAA GTAGTCATCT TTTTCTCTCC	10260
TGACTTTGAT ACTCTTATTA TAAACCTTAA ACCAAAAGAT GAAAACGCAT TCTTTTCTCT	10320
TATTGTAAAG GAAAGAAGTA ATTTTAAATG GAAATAGAAC AATATCTTCT TGTATTCTCG	10380
TAATGATATC TTTACGATT TCAATACTTT CAAACTACAA AAACCTCTAC AATAATTCTA	10440
ATTCCCTGTG TCTATAAAG ACTTATCGCT TTCTGGCATC CCAGAATCAT CTTCTATATA	10500
ACGTTCAACT TGCATCTGCA AGTGATATTT TTTCTTAAA TCTAAGATT TCTGCATTGT	10560
CTTTGATTGA TAATGTTTAT CTAAAGTTTC TTGATTATC CACTGATCAA TAAGGAGAAT	10620
AGTTCCCTCT TTTTCAATTG GTAAAAATA TTCGTATTTT AAGTTACCTT TTTGATTTCT	10680
AATTTCTTTA ACAAGGCCAC TATCAAGCAT TTCTCTTGCA AACTTTATTG CACTATCTCC	10740
ATCACCTTTA TAATATACAT GAATAGTCAA TGTCATCTTA TATCCTCCAA AATCATCCTT	10800
CAATTTTAAA AAAACAAGTT TAGATGAGGA TCTAACTTG TTTTTTATGA ACTAATTATC	10860
TAACGTTTCG CCATTACTTT CAATCACTTC TTTATACCAA TAAAATGATT TTTTCTTATA	10920
GCGATTTATA GTCAATTGAA ACAAGAGCAG GACAAAAGAG CCTCATAAAA GGTATTGCAA	10980
CTTGGAATA CCTTTTGTAG GTGCTTTTGT ATATGAGCCC ATGTTTTCTC AATAGGATTG	11040
TACTCAGGTG AGTAGGGAGG AAGAGGTAAA AGTTTATACC CAACTCTTC ACACAAGAGT	11100

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TCTAGCTTCC CCATTCTATG GAATCTTGCA TTATCCATAA TAATAACCGA TGGTGTGGTT	11160
AATGTTGGTA AGAGAACTT CTGAAACCAA GCTTCAAAAA AGTCGCTCGT CATCGTCTCT	11220
TCGTAAGTCA TTGGAGCGAT TAACTCACCA TTTGTTAGAC CTGCAACCAA AGAAATCCTC	11280
TGATATCTTC TTCCAGATAC TTT	11303

(2) INFORMATION FOR SEQ ID NO: 116:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3112 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATTT CCACTTGCCA GAGGAATTGA TTGCCCAAAC GCCCCTTGAA AAACGTGATG	60
CCTCCAAACT CCTCATCGTC AACCGTGAGA CAGGAGAAAT GCAAGATAAA CATTTCCTACT	120
CTATTATTGA TATGCTGGAA CCTGGTGATG CCCTTGTCAT GAACGACACC CGAGTTCTCC	180
CTGCCCGCCT CTATGGTCAA AAAGTGGAGA CAGGAGGTCA TGTGGAACCT CTCCTCCTTA	240
AGAACACTAG TGGAGACGAG TGGGAAGTTC TGGCTAAACC TGCCAAACGC CTCAGGTCG	300
GTACTCGTAT CAGCTTTGGT GATGGCCGCC TCAGCGCTGT CGTTACAGAA GAATTGACCC	360
ACGGGGGACG CATTGTCCGC TTTGAATACC AAGGAATTTT CCTAGAAGTC TTGGAAAGTC	420
TGGGAGAAAT GCCTCTGCCA CCTTATATCC ACGAAAAATT AGATGACCGT GAACGTTATC	480
AAACCGTCTA CGCCAAGGAA AGTGGCTCTG CTGCAGCACC GACTGCTGGT CTTCACTTCA	540
CCAAAGAACT GCTGGCAGAA ATCCAAGCTA AGGGTGTTC TCTAGTCTAT CTGACTCTCC	600
ATGTCGGACT CGGAACCTTT AGACCTGTTT CTGTGGATAA TCTGGACGAA CACGAAATGC	660
ACTCAGAGTT CTATCAACTT TCTGAGGAAG CTGCTGCCAC CCTTCGCTCT GTCAAAAAAA	720
ATGGTGGTCG TGTATCGCT GTCGGAACCA CTTCTATCCG CACCTTGGAA ACTATTGGTT	780
CCAAGTTTGA TGGGCAAATC CAAGCAGATT CTGGTTGGAC CAATATCTTT ATCAAACCTG	840
GGTATAGTG GAAGGTCGTG GATGCCTTCT CAACCAACTT CCACCTGCCA AAATCAACTC	900
TGGTCATGTT GGTTCCTGCC TTTGCAGGCC GTGAATTAGT CTTAGATGCC TACCACCATT	960
CCATCCAAGA ACACTACCGC TTCTTCAGTT TTGGTGACGC CATGTTTATT TATTGAGAAA	1020
GAATTTCTCT AAATCTTCTA ATACCAATAA ATCGCTAAGA TATTATTTC AAGAACATCT	1080
ACAATTGAAA CTCTAGCTAG CTGTAGAAGA GGCCTAGTAC ATTGAAATTA AAATGCTTCC	1140
CCCTAGCTTC GAAAAATTG CCATAGATTG CGTTGACTCT CCAAATTGAT TCATCTATAT	1200

TTTATTTTCAG CTTCCTATAC TTTCTTCGCT GTTTGTAAT CAAAATGCAA GACACATGAG	1260
TAGCACCATA TTTGTTACTC TTATCTGTCC TCTCAAGAGA CTATTATGAG TTATTTTCAGA	1320
ATCATTCACT ACTTTGACCC TGACTCTCCT TAGTCTCAAA ATCAAAGACT TATACTCTTC	1380
AAAAATCTCT TCAAACCGCG TCAACGTAC CTTGGATTAT ATATGTGatC TGaCTTCGTC	1440
AGTTCTATCT ACAACCTCAA AGCAGTACTT TGAGCAACCT GCGACTAGTT TTCTAGTTTG	1500
CTCTTTGATT TTCATTGAGT ATTAACAAA AAGTGAACAA ATCTGAATTC TAATGTACAG	1560
AAGACTAGGC TTGTTCACTT TTTTATAGTC GCTATAAGAT GACCTTATCT ATAGCTTTTT	1620
ATATATAATT ATATATTCAG ACATACTATT ATCAATTTTG TCGCAGGGAG GAATCTGTTA	1680
ACGCACCCAT TCACCATTAT CATTGACTCT ATAGCCATCT ATACTTGTAT TGACCGCTAA	1740
CTCACCCGAT GTATTTACAT AATACCATT ACCACCACT TGGAACCATT GATTGACTTT	1800
CATAGAACCG TTGCTGTTGA GGTAGTACCA TGAACTATTA ACTTGATCCC AACCTGTTGC	1860
CATGGAACCA TCAGTATTAT AAAAATACCA CATACCATTT TCTTGTTTCC AGTCTGTTGT	1920
TGGAGCAACT GCTTTAGCTG GTTCTACTGC TACATCTGTT CCTTGGTTAG ATGTAACAGA	1980
TACAGGATAC GAAGGAATAG ATGATTGCTC AGGAACAACA ACTTTTTCAG GTTCTCTCGT	2040
CCCTCTCCTT ATACGTCTTT TTACCATCTC TTTAGTAATT TGACGAGAAG TAGTTTCTTC	2100
AATTGTTCCA TCACGTTTAT CTACAGTATA GATTGTAGTA AGAGTAATTT ACCAATTTCT	2160
CCTACTCTCT CTACTTCTTG ACTTTTATCA AGAGTTGGGC CATCGAGATA TTCTGTTTCG	2220
ATTGGAATTT CTTGGACAAG AACTTGGGGC TTGGTTCTTT TTTTAACAAC TCTGTTTGA	2280
GAGTCTTTTT TTTGACTTAA AGTACTCTCA GTTACTTGTC CACTCTTTCC ATCTACATTA	2340
TAAGTTATCG TTGTAACGT TTTCCCATTC TTTCTAGAG TAATCTCTTG CTCCTGTCCT	2400
GCAGAAAGGT CATGTCTGTC TTCATATTIA GTAGCAAATG GAACAAGAAC TTCTTCAACC	2460
TTGCTTTTAG CTGGAACCTT GATAACTGTA TCCGTGGCTT CTTTCTATC AACAGTAACC	2520
TGTTCCGGTAA CATAACCACT CTCTGGATTA ACATCGTAGG TCCTTGTCGT AGTTACATAG	2580
CCATCCTCTC CATCAATTGT AACAGGATTT TCACTACGGT CTTTGTGTTT ATCTTTTCA	2640
TAACGAATTC GCGTACTTGA AATTTTCTTG GTTACTACCT TAGGTTTAGT CGCTACTTTT	2700
ACAATAATAT CCCCATGTGC AGCGTCATCA TACTCTATTC CCTCTTCTTT ATCTCTAGTA	2760
TCATCTCTGA CATATTGAAT CCCATCAGCA GCATGAACAA AACTTGTATT CAGATTCCTC	2820
CTAAAAATAA AGTTAGCCCG ATTACCGCAG AACCAGAAAT CTTCCGAGT TTACGTATTG	2880
CATAGCGCTT ATTAGTATTA GATTTTGCCA TTACATCCTA CTTCTAGTAT AGCATCTTTT	2940

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CTATCAAACG TTAAACAATA TACGTTATAT ATAAATAGA CTTAGAATGA TATATTGATT	3000
ATTGAACTAA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC	3060
TTATCTAAAT ACATGCGAAT ATATTTAGAT ACAAACATTC CAACTTGATA AT	3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4327 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCCAAAATC TCTTCAAACC ACGTCAGCTT CGCCTTGCCG TAGTATGGTT ACTGACTTCG	60
TCAGTTCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCGGCTAG CTTCTTAGTT	120
TGCTCTTTGA TTTTCATTGA GTATAAAAC AGATGAGTTT CTGTTTTCTT TTTATGGACT	180
ATAAATGTTT AGCTGAAACT ACTTCAAGG ACATTATTAT ATAAAGAAT TTTTGAAGAC	240
TAAAATCTAC TATATTACAC TATATTGAAA GCGTTTTAAA AATGAGGTAT AATAAATTTA	300
CTAACGCTTA TAAAAGTGA TAGAATCTAT TTTTATGTAT ATTTAAAGAT AGATTGCTGT	360
AAAAATAGTA GTAGCTATGC GAAATAACAG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG	420
GGGAATAATA TGATATTTAA GGCATTCAAG ACAAAAAGC AGAGAAAAG ACAAGTTGAA	480
CTACTTTTGA CAGTTTTTTT CGACAGTTTT CTGATTGATT TATTTCTTCA CTTATTTGGG	540
ATTGTCCCTT TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATTATATT TCCCATTATT	600
TCTACAAGTA TTTATGCTTA TGAAAAGCTA TTTGAAAAG TGTTGATAA GGATTGAGCA	660
GGAAGTATGG TGTAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT	720
AGTTTAATTG CAGCGGTGTC CTGGTAGATA AACTAGATTG GCAGGAGTCT GATTGGAGAA	780
AGGAGAGGGG AAAATTGGCA CCAATTTGAG ATAGTTTGTT TAGTTCATTT TTGTCATTTA	840
AATGAACGTG AGTAAAGAA AGTTAATAAA AGACAAACTA AGTGCATTTT CTGGAGTAAA	900
TGTCCTTATT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAAT CGGAGTGTTT	960
AAGAACGTAA GTGTCGTTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG	1020
TAGGAGCAGT GGTATTTGGA ACGTCTCCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC	1080
CTCTGGCAAA TGAAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA	1140
GCCAGCCTTC TTCAGAGACT GAACTTTCTG GCAATAAGCA AGAACAGAA AGGAAAGATA	1200
AGCAAGAAGA AAAAATTCCA AGAGATTACT ATGCACGAGA TTTGGAAAAT GTCGAAACAG	1260

TGATAGAAAA AGAAGATGTT GAAACCAATG CTTCAAATGG TCAGAGAGTT GATTTATCAA	1320
GTGAAC TAGA TAAACTAAAG AAACCTGAAA ACGCAACAGT TCACATGGAG TTTAAGCCAG	1380
ATGCCAAGGC CCCAGCATT CATAATCTCT TTTCTGTGTC AAGTGCTACT AAAAAAGATG	1440
AGTACTTCAC TATGGCAGTT TACAATAATA CTGCTACTCT AGAGGGGCGT GGTTCGGATG	1500
GGAAACAGTT TTACAATAAT TACAACGATG CACCCTTAAA AGTTAAACCA GGTCAGTGGA	1560
ATTCTGTGAC TTTCACAGTT GAAAAACCGA CAGCAGAACT ACCTAAAGGC CGAGTGCGCC	1620
TCTACGTAAA CGGGGTATTA TCTCGAACAA GTCTGAGATC TGGCAATTTT ATTAAAGATA	1680
TGCCAGATGT AACGCATGTG CAAATCGGAG CAACCAAGCG TGCCAACAAT ACGGTTTGGG	1740
GGTCAAATCT ACAGATTCGG AATCTCACTG TGTATAATCG TGCTTTAACA CCAGAAGAGG	1800
TACAAAAACG TAGTCAACTT TTAAACGCT CAGATTAGA AAAAAACTA CCTGAAGGAG	1860
CGGCTTTAAC AGAGAAAACG GACATATTCG AAAGCGGGCG TAACGGTAAC CCAATAAAG	1920
ATGGAATCAA GAGTTATCGT ATTCCAGCAC TTCTCAAGAC AGATAAAGGA ACTTTGATCG	1980
CAGGTGCAGA TGAACGCCGT CTCCATTCGA GTGACTGGGG TGATATCGGT ATGGTCATCA	2040
GACGTAGTGA AGATAATGGT AAAACTTGGG GTGACCGAGT AACCATTACC AACTTACGTG	2100
ACAATCCAAA AGCTTCTGAC CCATCGATCG GTTCACCAGT GAATATCGAT ATGGTGTGG	2160
TTCAAGATCC TGAAACCAA CGAATCTTTT CTATCTATGA CATGTTCCCA GAAGGGAAGG	2220
GAATCTTTGG AATGTCTTCA CAAAAGAAG AAGCCTACAA AAAAATCGAT GGAAAAACCT	2280
ATCAAATCCT CTACCGTGAA GGAGAAAAGG GAGCTTATAC CATTGAGAA AATGGTACTG	2340
TCTATACACC AGATGGTAAG GCGACAGACT ATCGCGTTGT TGTAGATCCT GTTAAACCAG	2400
CCTATAGCGA CAAGGTGAT CTATACAAGG GTGACCAATT ACTAGGAAAT ATCTACTTCA	2460
CAACAAACAA AACTTCTCCA TTTAGAATTG CCAAGGATAG CTATCTATGG ATGTCCTACA	2520
GTGATGACGA CGGGAAGACA TGGTCAGCTC CTCAGATAT TACTCCGATG GTCAAAGCCG	2580
ATTGGATGAA ATTCTTGGGT GTAGGTCCTG GAACAGGAAT TGTACTTCGG AATGGGCCTC	2640
ACAAGGGACG GATTTTGATA CCGGTTTATA CGACTAATAA TGTATCTCAC TTAGATGGCT	2700
CGCAATCTTC TCGTGTATC TATTCAGATG ATCATGGAAA AACTTGGCAT GCTGGAGAAG	2760
CGGTCAACGA TAACCGTCAG GTAGACGGTC AAAAGATCCA CTCTTCTACG ATGAACAATA	2820
GACGTGCGCA AAATACAGAA TCAACGGTGG TACAACTAAA CAATGGAGAT GTTAAACTCT	2880
TTATGCGTGG TTTGACTGGA GATCTTCAGG TTGCTACAAG TAAAGACGGA GGAGTGACTT	2940
GGGAGAAGGA TATCAAACGT TATCCACAGG TTAAGATGT CTATGTTCAA ATGTCTGCTA	3000

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TCCATACGAT GCACGAAGGA AAAGAATACA TCATCCTCAG TAATGCAGGT GGACCGAAAC	3060
GTGAAAATGG GATGGTCCAC TTGGCACGTG TCGAAGAAAA TGGTGAGTTG ACTTGGCTCA	3120
AACACAATCC AATTCAAAAA GGAGAGTTTG CCTATAATTC GCTCCAAGAA TTAGGAAATG	3180
GGGAGTATGG CATCTTGAT GAACATACTG AAAAAGGACA AAATGCCTAT ACCCTATCAT	3240
TTAGAAAATT TAATTGGGAA TTTTGTAGCA AAAATCTGAT TTCTCCTACC GAAGCGAACT	3300
AGAGAGATGG GCAAAGGAGA GATGGGCAAA GGAGTTATTG GCTTGGAGTT CGACTCAGAA	3360
GTATTGGTCA ACAAGGCTCC AACCTTCAA TTGGCAAATG GTAAACAGC GACTTTCCTA	3420
ACCCAGTATG ATAGCAAGAC CTGTGTTTT GCAGTAGATA AGGAAGATAT CGGACAGGAA	3480
ATTATTGGTA TAGCTAAAGG AAGCATCGAA AGTATGCATA ATCTTCCTGT AAATCTAGCA	3540
GGTGCCAGAG TTCCTGGCGG AGTAAATGGT AGCAAAGCAG CGGTGCATGA AGTTCCAGAA	3600
TTTACAGGGG GAGTTAATGG TACAGAGCCA GCTGTTCATG AAATCGCAGA GTATAAGGGA	3660
TCTGATTGCG TTGTAACCTCT TACTACAAAA AAAGATTATA CTTACAAAGC TCCTCTTGCT	3720
CAGCAGGCAC TTCCTGAAAC AGGAAACAAG GAGAGTGACC TCCTAGCTTC ACTAGGACTA	3780
ACAGCTTCT TCCTTGGTCT GTTTACGCTA GGGAAAAAGA GAGAACAATA AGAGAAGAAT	3840
TCTAAACATT TGATTTTGTA AAAATGGCTC TTGTCAACT GTAGTGGGT GAAGTCAGCT	3900
AAGCTCGAGA AAGGACAAAT TTTGTCCTTT CTTTTTTGAT ATTCAGAGCG ATAAAAATCC	3960
GTTTTTTGAA GTTTTCAAAG TTCCGAAAAC CAAAGGCATT GCGCTTGATA AGTTTGATGA	4020
GATTATTGGT CGCTTCCAAT TTGGCGTTAG AATAGTGTAG TTGAAGGGCG TTGACGATTT	4080
TCTCTTTGTC CTTTAGAAAG GTTTTAAAGA CAGTCTGAAA AAGAGGATGA ACCTGCTTTA	4140
GATTGTCTC AATGAGTCCG AAAAATTTCT CCGGTTCTT ATTCTGAAAG TGAAACAGCA	4200
AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTA ATAGCTCAAA AGCTTGTTTA	4260
AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGGCG ATAAAAATGT TTATCGCTGA	4320
GTTTACG	4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3521 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTTGTCA GGGTGCTTTT TTCATAAAGG AGTTCTTATG	60
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TTAGATATCA AACGTATTCG TACAGATTTT GAAGCTGTCG CAGAAAAATT AGCTACACGT	120
GGTGTAGATG CTGCTGCTTT GAATGAAATG AAAGAAATCG ATGCTAAACG TCGTAACATC	180
TTGGTCAAGG TTGAACTCT CAAAGCAGAA CGTAACACAG TTTCTGCTGA GATTGCCCAA	240
GCTAAGCGCA ACAAGGAAAA TACAGATGAC AAGATTGCTG CCATGCAAAA TCTATCTGCT	300
GAGGTTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAAATTGAC AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCCTGTTG GGGCTGACGA AGACGACAAT	420
GTGGAAGTTC GCCGTTGGGG TACTCCACGC GAGTTTGACT TCGAACCTAA AGCTCACTGG	480
GATCTCGGTG AAGACCTTGG TATCCTTGAC TGGGAACGCG GTGGTAAGGT AACAGGCGCT	540
CGCTTCCTCT TCTATAAAGG CCTCGGTGCT CGTTTGGAAC GTGCTATCTA CAACTTTATG	600
TTGGATGAAC ATGGAAGAGA AGGCTATACT GAAGTCATCA CACCTTACAT AGTCAACCAT	660
GATTCTATGT TTGGTACTGG TCAGTATCCA AAATTTAAGG AAGATACTTT TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACGCT GAAGTTCCTC TGACAACTA CTACCGTGAT	780
GAAATCTTAG ACGGCAAGAGA TCTTCCAATC TACTTCACTG CCATGAGTCC GTCATTCCGT	840
TCTGAGGCTG GTTCTGCCGG TCGTGATACG CGTGGCTTGA TCCGTTTGCA CCAATTCCAC	900
AAGGTTGAAA TGGTCAAAT TGCCAAACCA GAAGAATCTT ACGAAGAATT GGAAAAATG	960
ACAGCCAACG CTGAAACAT TCTTCAAAA CTCAACCTTC CATACCGTGT CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGCG AAGACTTACG ACTTGGAGT GTGGATTCCA	1080
GCACAAACA ATTACCGTGA AATCTCAAGC TGTCAAACA CAGAAGATT CCAAGCCCGT	1140
CGTGCCCAA TCCGTTACCG TGATGAAGCA GATGGCAAGG TGAACTCCT TCATACCTG	1200
AACGGTTCTG GACTTGCACT TGGACGTACA GTGGCTGCAA TTCTTGAAAA TTACCAAAAT	1260
GAAGATGGTT CTGTGACCAT CCCAGAAGCA CTTCTGCCAT ACATGGGTGG AGCTGAAGTC	1320
ATCAAACCAT AAAAAATAAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTTC GTAACCAAT	1380
CAGATAAGCA CCTAGTACAA AGAATAAAT AGTTAGGCAT ATAATGGTTT CAGCCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAT TCCCTGAGCC ATCTTGAGCG AGGTGCTGT	1500
GATAATGGTT GGAAGGTGA GGGCTGAGAA GGCTGGTTGA AAACCTTGTT TAAAAATGTT	1560
GGGCAGACGA GTTAAACAA AGAAAAAGAA GGATTGAGAA GCCAAAATCA TGACAATCAA	1620
GACCCAAGTC GGCAGGCTGG TTCCTCCTAC TCGAACTAGA GAAGCCAAGA GTAGAGAGAA	1680
AGGAGCACAG TAGATTCTTT CTTGTCCAAG CAAGGCTAGT GGGAGTGGAT GTTCTTTAA	1740
ATCGCTATAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC TCAAGGTCCG	1800

844

ATAGGCAATT TCGATAATAC CTACCAGAGG ATAGGTCAAG GCAGCCACTG CTATCCCCAC	1860
ATAGAGAACC GTCCAGCTTG GAGTGGCATG AACCCCTCCG CCTGGACAAG CAAACTTGAT	1920
GGTAAACCA GCAATCAAGG TCAAATCCAA GAGAAATGAA AACCAACAAA TCCCTTGTGC	1980
TACCAAAGGA AGATAAGAGA ATACGCGAAA GACATAGGTC GATAAAATCA TCCCAGCCAT	2040
AGGAAAGGTT GCCATTCTG ACAAAGAGG GGGCTTGGTC AATTCTTGCT TGGTTTCTTT	2100
CCAATTAAAG AGATGCAGAA TTAGAAAGTA AATCCATAAA ACCAAACCAA TCAGACTAAA	2160
AAGATGGGAT AGAACCGGCA ACGTATCTAA AATAAGATTT CCAGCTCTG CCAAACCTAG	2220
CAAACAACCT GAAATACTA AGGGGAGTTT TTTCATCCTA ACCTCCAATA ATCATGTTAG	2280
TTTCAGTATA ACATAAAGC GCTTAAATGA GGATTTAAAA AAACGAGTCC GCTTATTTCA	2340
GACTTCATTT TACTCAGATA TGAATTAGGC ATAAGGTTGC AATTCTGGAT TAATTGGTGT	2400
ATTAGCTAAG TTGTTGGCAT AGTTACAGAG GATTGCTAGG CTGACACCAA AAACCACATC	2460
CAAGGCATTT TGTGAGTGT AGCCAGCTTC TAAAACTCA GACAAGGCTT CATCTCCTAC	2520
ACGACCCTTG GTATTGATAA CTGCCAAGGT AAACCTAGCT AGGGTATCCA ATTTAGGATC	2580
TGTTTCAATT GGAGTACGAT TGCGAAGAGC TTGAATCAAG TCATCATTC A TCTGGATTTG	2640
TTTGATGGAA AAGGCTGTGT GACCTGCGAC ACAGAAGGCA CAACATTGG TCACGGCTGC	2700
CGTGATTTGC ACCACTTCAC GCTCAACGGG TGTGAGGCTG TTGCGACGGT GGATAGATGA	2760
GACAATTTGG TAGGCTTCTA AAACAGTCGG GGCATTGGCC AAGAGACCGA TTAGGTTGGG	2820
AATATAGCCA TTGTTGTCTT TTCTACTGT TTCAAGAAAT TCTTTCACCT CTGCTGGTGC	2880
TGACTCTACT GTATGGATAG TAAATGTTGT CATAAGATAC CTCTTTTCTT ATTATTGACA	2940
CTAATATTAT TGGAAATCT TATAAAATCC TGATTCCTAA GTTTATCTAA GATAAAGCTT	3000
TATTTCTCTA TAAGATTTTC GTTGTATAT TAGTTTATCA CACTTCCAAT CACTTGATTA	3060
ATATATATTA TATATCAGGC TGATAAAAT TATTTATAGG CAAAAAATC ACACGAGCTG	3120
TGTGATTCCA TTATTTGTCA AAATACTTTT TAGTTTCAGC AATAACGACT GGCGACAAGA	3180
CCAAGAGGGC AATCAAGTTT GGCAGAGCCA TCAAGGCGTT AACGATATCT GCGATAATCC	3240
AGACCATATC CAACTCGATA AATCCTCCTA ACAAGACCAT GAGCACAAAA ACCACACGGT	3300
AGAGCCAGAT AAAGCGAACC CCAAGAGGA ACTCAAACA GCGTTCTCCG TAATAGTTCC	3360
AACCTAGAAT CGTTGTAAAG GCAAAAAGTA CAAGGAAGAT GGTCAAGAGA GCAGGCCCAA	3420
AGTGTAAGAA GTTTGTTGAG AAAGCTGACT GAGTCAAGGC AACCCCATTC AAGTCACCGC	3480
TCCAAACTCC AGTTACCAAG ATGGTCAAAC CAGTTAGAGT A	3521

(2) INFORMATION FOR SEQ ID NO: 119:

845

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1968 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA AGCAAGCTAA AAGCAATGGG ACCTGGAATC CTAATGGCAA CTGCCGCTGT	60
TGGAGGTTCC CACATTGTAT CCTCAACTCA AGCTGGCGGT TCTTACGGTT GGTCTCTACT	120
TCTCTTGGTC ATCTTAGCCA ATGTCTTTAA ATATCCATTT TTCCGTTTGT GTGCTGAATA	180
CACAGCTGAT ACTGGAAAGA CTTTGGTTGA AGGTTATGCC GAAAAAGGAA AACTCTATCT	240
CTGGATTTTC TTTATCCTCA ATGTCTTTTC GGCTATGGTC AACACGGCTG GTGTTGCCAT	300
TCTGTGCTCA GCTATCATCG CCAGTGCCTT CCCAATGATT GGACTTAGCA TTACTCAGTG	360
GTCCCTCAAT CTCGTTGCAA TCATTTGGGC TATGCTACTC TTTGGAGGCT ACAAACTTT	420
AGACGGCATG GTCAAATGGA TTATGTCTGC CTTAACCATT GCGACTGTTT TTGAGTTAT	480
CATTGCGGCG GTCAAGCATC CAGAATACAG TTCTGATTTT GTCGAGAAGA CACCTTGGCA	540
AATGGCAGCT CTGCCCTTCA TCGTCTCCCT CCTAGGATGG ATGCCGGCTC CTATTGAAAT	600
TTTCAGCCATC AATTCACTTT GGTGAGCTGA AAAGAGAAAG ACCGTCAACT TTAACACAGA	660
AGACGCTCTG TTTGACTTTA AACTGGTTA TATTGGAACA GCTATCCTAG CCGTCTTCTT	720
TGTGGCACTG GGAGCACTGA TTCAGTATCC TACAGGCGAG GCGGTTGAAG CTGCTTCAGC	780
CAAATACATC TCTCAATTCG TGGGCATGTA TGCCTCTGTT CTTGGCGAAT GGTCCCGTTA	840
CTTGATTACC TTTATTGCCT TCCTCTGTAT CTTTGAACA GTTATAACTG TTATCGATGG	900
CTATTCTCGC GTTAATCAGG AATCTCTCCG ACTGCTAATC AGTCAAAAAG AGGACAATCG	960
TAAATCTTTG AACATCTGGA TGACCATCAC TGCTATCATC GGTATCGTCA TTATCAAGTT	1020
CTTCGCTGGT CAGGTTTCAA CCATGCTCCG CTTTGCCATG ATTGGCTCTT TCCTGACAAC	1080
ACCTTTCCTT GCTCTTTTGA ATTACGCCTT GGTAACGCGT GAAAACAAAA ATCTTCCTTC	1140
TTGGCTCAAA CACCTTGCCA TTGCGGGATT GATTTTCCTC TTTGCTTCGC CATCTTCTTT	1200
ATCTACGCAC TCGCAATCGG AAAAGCAGG TAAGGGACAA GCGCGAGATG AAGATAAGGT	1260
TTCAATTCAA GAGAAAATTC AGCAAATATT TCTATGATAA AAAGCATAAG AACAAAGTTT	1320
TGAAGACCTG AACTTATGCT TTTTACGTT CTTAAAGACT GTTTTACTC AAAAAACAGT	1380
TGAACAACCT CAACCACCTC TTATAAGAAC TTTTACTAT TCGAGAATCT CTTCAAACCA	1440

846

CGTCAGCTCT ATCTGCAACC TCAAAGCTGT GCTTTGAGCA ACCTGCGACT AGCTTCCTAG	1500
TTTGCTCTTT GATTTTCATT GAGTATTAAT TCTCCTTTTC CAACTCATAC AAATCTGCGA	1560
TAATAGCTGC GACATGTTTG ATATCTTCCA GCATGCCTCG CATTTCAAAG TCAGCCAATA	1620
CAGGGAAGCC AAAGCGTTGA CTGTATTGCT TGGCTGTTAG GCAGTATTGG TTATTAAAGT	1680
TACGATTTCC TGACCCAACC ACACCAAAAC ACTTACTAGC ATTGTTACCA TAGGCAATAA	1740
AATCTCCAC CGGTGTCGTC AAAATCTCAA CATCTCCGTT ATCCACGCCA TTCCACCTT	1800
CGAGATAGGT CGGCAAAAAA GCGACATAGG GATGGTCCAT TTCATAGAAA TTTTGCCTT	1860
CCTTGACCAA ATCCTTGATA TGAATCTTTT GAACCTCAAT CCCTTTGTAC TGGGACAAGA	1920
GATAGTCTTT CAAGCGCGTC ACAAACCTTT CAGTGTGCC ACTCAAGG	1968

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7172 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

CCGCATTTTT TATCACTAGA CTCGAGACAT CTTTGTAGTG GCTCTTGCTC TCTGGTTTAA	60
TTTTCTTCCT TGCTCAAGGA CTCCTGCTAT TTCTCTGGT CGTCCGACTC AAACATCAAT	120
TCGCTGAGAT TTATCCTCAA ATCAATAAAA AGATTGCGTT CTACTATTTA GGGGTTCTCA	180
CCATTGATTT TCTATTTTTT GTTCTCTTAG CCTTCATTAG TTCTCAGCGT TTTTCATCTC	240
TTATGCCAAT CATCACTGCT TGCCATTCTA CTTTTTATTA TATGACAGCT GACTACCTAA	300
GAGAAAAC TA TCCAGACTTT TACGACAAAC ACATCTCTTT ATGGGAGTGT CTCTAAAGAA	360
AAGGAGGTTT TAGCATGAAA AAAATCATCT TCATCAAAAC CATTCAACTC CTTGTCATTG	420
ATGGAATCAT GCTGGCATT TTAGCATTTA AAAGGGGGCT TACTTGGGAC TGGATTTTGA	480
TTTATAGCGG TTGGCTCATT TTCTTTTCATC CTGTGCTATT GACCTATCTT TCAAACCAAC	540
TTTGTGACCA CTTTAGTTAA CTCTATTTCC AGATTAGACC GAGATTCTGG CGTTTTGCTT	600
TACAAATTCT CCTATGGGAT AGCCTGATGA TTCTCTCCTT GGTGTCTTTA AGTGATATTC	660
CACTTTTCCT TCAGGGAACT CTCCTCATCC TAGGACATCT CATCCCTTCC TATCGCATCT	720
GCCAAAGCCT GAAAAGAGAC TTCCCCCAAG CATATCAAGA ACCGATTTCT TTTTGGAGTA	780
TTTATGATA GATGAGAAAG ACCAAGCCGA CTGGGCTTGG TCTTTCTTAT CTCTTTTATG	840
TATCTAGGAT AATGGTAACA GGTCCATTAT TAACCAGCTC AACCTGCATA TCTGCTCCAA	900

847

AGATGCCTGT CTGAACGGGC ACTTCTTGCG CTAATTTTGG ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GCTGCCCCTG TAAAGGCTGG ACGATTGCCT CTCCTAGTAT	1020
CCGCAAGAG GGTAACTGA GAAATAGAGA GGATTTCTCC TTCAATATCT TTGACAGACA	1080
GGTTCATCTT GCCTTCTGCG TCTGAAAAA TCCGCATATT GACCAGTTTT CTCACAGCAT	1140
AGTCCAAATC TTCCTCTTGG TCCTCTGGTC CAACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACTTGGGC TTTTAAACC CGTTGGATAA	1260
TGATTTTCAT AATAGCCTTT CTAGTAAGAG CTAGGACAAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAAACT TCTGGCACAC TCTTAATTTT ATCGACAACC GTGGTCAGTG TAGAGAGGTT	1380
GGCAATACCG AAGGACACAT GGATATTAGC AACTTCATA TCCTTGGTTG GTTGGGCATT	1440
GACCGTTGAA ATATTCTTGG TTGTATTGA AAGAACTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTTG AGACCGTAGA TATCGATATG GGCCATATAC TCCTTATTG AGCTAGGGTA	1560
CTGGTCTTCC CATCCACAT CAAGGAGACG TTGCTCGTAG TTTTCTTGGG CACGCAGGTT	1620
CATACAGTCC ACACGGTGAA TAGCCACACC ACGACCCTTG GTAATGTAGC CAACAATATC	1680
GTCACCAGGC ACGGGTTAC AACACTTAGC AATCCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCCTCAT GCTTGACCTT GAGGGTTTCT TTATTTTCAA CCTTGACCTC	1800
GCCACCTTTG ACAAGCTCCT CTGCCTCAGC TTTGGCCTTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATCGACCG ATTTCCCAA AACCAATGGC	1920
CGCAAAGAGG GAGTCTTCTG TCTGTAACT GGTCTTTTGC AGAACTGAT CCATGTGGCG	1980
CTGTGCCATA AATTTATTG CCACATAGCC ATTTCTTGG AACTGAGCCA TCAGCATCTC	2040
ACGACCCTTG TTGACAGACA ATTCCTTATC TTGGTTTTTA AAGAACTGGC GAATCTTATT	2100
GCGCGCCTTG CTAGTCTTGA CCATATTGAG CCAGTCACGG CTAGGTCCAA AGGAGTTCGG	2160
GTGGCGGATA ATTTCAACCT GATCCCTGT CTTTAACTTG GTTGTCACTG GAACCATGCG	2220
GCCATTGACC TTGGCACCAG TTGCTTTTTT ACCGACCTTG GTATGGATTT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGCT CCATCTGGGG TAAAAACGTA	2340
AATCTCCTCA GCCAAATAGT TTTCCTTAAC AGAGTCCACA AATTCCTTAG CATCATCAGC	2400
CTGGTCTTGG AGCTCCATCA TCTCCTTGAT CCAGTTCATT CCAATAGCTG ATTCCTTGCT	2460
GTAACTTGC CCCTTTATAC CTTTCTTATA AGCCCAGTGA GCCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTTCTTGG TTCGAATCTG GAATTCATC GGCCCTTTTG GTCCATAAAC	2580
AGTCGTATGG ATAGACTGAT AACCATTGGC CTGCGGTTG GCGATATAGT CTTTGAAGCG	2640

848

ACCTGGCATC GGTTCCTAAA ATTCAATGCAC GTAACCAAGC ATGGCATAAA CATCACTTTG	2700
GGTATCTAAA ATACAACGAA TAGCAATCAG ATCATAGATT TCCTCAAACC GTTTTCTCTT	2760
GTCCCTGCATT TTGCGGAAAA TTGAGTAAAT ATGCTTGGA CGACCATAAA TCTTCCCTTT	2820
CAAGTGACGT TCTGTGTAT ACTCCTCTAA TTTTGTGACT ACCTCATCCA CCAAGGCCTC	2880
ACGCTCCCTG CGCTTTTCCT TCATCATATG GGTAATCTTG TAAAACTCCG TTGGATTGAG	2940
ATAACGAAA GACAAGTCTT CTAATTCCTA TTTGACACTG GAAATCCCA AACGATGGGC	3000
AAGCGGGGCA TAGATTTCCT TGGTTTCTTT GGAAATACGC TCCTGCTTGT CTTTTCGAAG	3060
ATGTTTCAGG GTCCGCATAT TGTGCAAGCG GTCAGACAGT TTGACCAAAA TAACGCGGAT	3120
GTCCCTCAGAC ATGGCCATGA GCATCTTGGC ATGATTTTCC GCTAATTGCT CCTCGATCGA	3180
TTTGTACTCG ACCTTGCCAA GCTTGCTAAC TCCGTCAACA ATCATCCGCA CATCAGGACC	3240
AAACTCTCTT TCCAAATCGT CCAAAGTCGC ATCTGTATCT TCCACCACAT CATGCAAGAA	3300
TCCACAAGCT ACTGTTACAG CATCCAGCTT TAGCTTAGCT AAAATACCTG CCACCTGGAT	3360
AGGGTGAATG ATATAAGGCT CGCCTGATTT GCGATATTGA CCACTGTGGC ATTCAACAGC	3420
ATAGACCAAG GCCTTATGGA CAAAATGAAC ATCCTCTTCC GTTAAATATT CTTTGGTTAA	3480
AGCGACAAT TCTTCGCTG TTAATTCAC TTCTTTCGGC ATCTCTACTC TCCAATTCTT	3540
CCTACCATT TATCACTTTT TTAAGAATAT GAAACTAGA TTGGAACAGA ATAAGAAAAA	3600
AATAATTCAA AATTGCTTGA TAATCTGAA TTATTGGTCC GTAATATACT ACGAAGTTAG	3660
ATTTTAACT TAGGTGATAG AAGGAGAGAT AGAAGAACGG AAACCATATT GTAACCCAAA	3720
GACTTCTGA CTTCCCAAT TCCATTGAAG ATACGAAAGA TAAACGGTGG AACTCGTATC	3780
ACATACACTG GTACCTTGAC TGGATTTTGG AATTAATACT AAATGAAAAT CAAAGAGCAA	3840
ACTAGGAAAC TAGCCGAGG TTAATCAAAG CACCGCTTTG AGGTGACAGA TAAAGTTGAC	3900
GCGGTTTGAA GAGATTTTGG AAGAGTATAA AAATCCTCAA GATACCTTCT TCTATCCTTT	3960
AGTTTATAAG GAGAATACCT ATGAAAAAA CTGCTATTTC TATCTTTGCT CTCCTAATGT	4020
TAGGAGTTTG CTGCTGTTT CTATTCAGCC AGCAAAGCTA TAAAAACAG TCGTTCAATA	4080
CTATGCTAAC GACCAGAAC TGCCTAGTAG GATAACTTAT AGTGAATATA GCGACAAATG	4140
AGAAGCCAAC TACGGTAGCA CTCTAAACAT CACGTCTATC AAACAAGCTA ATGACGGAGT	4200
TTATGCAACC TATGAAGGGC AATTGACACC TTTCCAATAT TGATAAATTG ATAACCAGCC	4260
TGCTTTCATC TAGTCATGCT GGTTTTAAAG TTCATTTTAA ATCCTTACCT ATTCTCCCTA	4320
ACTGTGCTAT ACTTAATTTA TACTCAATGA AAATCAAAGA GCAAACTAGA AAGCTAGCCG	4380
CAGGCTGTTT AAAGCACTGC TTTGAGGTTG CAGATAAAGT TGACGCGGTT TGAAGAGATT	4440

849

TTCGAAGAGT ATTAGTACAT TCTTTGAGAT TGGAGCTAGT ATGAAAATCC ATAAAACCGT	4500
GAATCCTGTT GCCTATGAAA ATACCTATTA TCTAGAAGGC GAAAAGCACC TCATCGTCGT	4560
CGATCCTGGT AGTCATTGGG AAGCCATTCC TCAGACAATC GAGAAGATCA ACAAACCGAT	4620
CTGTGCTATT CTCTTGACCC ACGCCCATTA TGACCATATC ATGAGTCTGG ACTTGCTTCG	4680
CGAGACGTTT GGCAATCCTC CTGTCTATAT CGCAGAGAGC GAAGCCAGCT GGCTCTACAC	4740
TCCTGTGAT AATCTCTCCG GTCTCCCTCG CCACGATGAT ATGGCAGATG TGGTCACAAA	4800
ACCTGCAGAA CACACCTTTG TCTTTCACGA AGAATACCAA CTAGAGGAAT TTCGTTTAA	4860
GGTTCTACCG ACCCCAGGGC ACTCTATCGG TGGTGTTCCT CTAGTCTTTC CTGATGCTCA	4920
TCTAGTCTTG ACGGGAGATG CTCTATTCCG CGAAACTATC GGACGGACCG ACCTTCCGAC	4980
TGGTAGCATG GAGCAACTCC TTCATAGTAT CCAGACCCAA CTCTTCACCC TACCAAACTA	5040
CGATGTCTAT CCAGGACATG GTCCAGCTAC TACTATCGCT CACGAAAAGG CCTTCAATCC	5100
CTTTTCTAG CAAGATGATG ACAATCGAAA TTAAAGTAAA CTATCCAGCA AATCTTCTA	5160
TTACAAAAGG CATCCTATCA AGGTTTTCAC ACATGATTGG ATGCCTTTT TCTGATGACT	5220
AGATTTTTTG CATTACCAA TAATCAGCG CTCCTCTGGT GAACGCCACA TTCCGTCTCC	5280
TTCTTTGACA TCATAGGTTG TAAAGAAATC GTCGAAGTTT GGTACTTGCA CATTGACACG	5340
GAGTTTGGCT GGTGCGTGCA CATCGACGCT AGCCAAAAGT TTCATAAATT CTGGTCGACC	5400
TTTCATGCGC CAGATGCGAC CGAAGTTGTA GAAGAAGTCT TCTGCTGAGA AGTCTGCTTC	5460
TCTCTTAGCT GCTTCAAGCG CTGCTGCGAT TCCTCCCAAG TCAGCCACGT TTTCTGATAC	5520
AGTCAATTTA CCGTTAATGG TTGCTCCATA AGAATCCTGT CCATCAAATT GGTCAATGAC	5580
TTTTTGTTGTT TTCTCCTTGA AGGCAGCATA GTCGCTCTCT GTCCACCAAT CCTTGAGGCT	5640
ACCATTTTCG TCAAAGGAAG CCCCCTTAGT ATCAAAGGCG TGGGAAATTT CATGGGCAAT	5700
CACTGCCCCA ATACCACCGT AGTTAGCAGA AGATGACTGA TGCAAGTCAT AGAAAGGCGC	5760
CTGTAAAATG GCCGCTGGAA AGACAATCAG GTTCTTCTGA GGATTGTAGT AGGCATTGAC	5820
CATATGAGCA GGCATGCCCC ATTCCTTATA ATCTACAGGC TGGTTCCACT TACTCCAAC	5880
GTGCTTGATT TCCACACGCG CAAAGGCTAG AGCATTCTCA AAAAGACTGG CAGTTTCATT	5940
CACTACCTTA TCCTTGTAAC GTGCAGGCAA TTCTTCTGGA TAGCCAATAT AAGGTTTGAT	6000
CACATTGAGC TTCACGATAG CCTGTTTACA GGTTCCTGGA GTGAGCCAGT CATTCCTAAG	6060
CAGACGCTCC TTATAACAT CAATCATGGT TGCCACTTTT TTCTCCACAT CCGCCTTGGC	6120
TTCTGGAGAG AACTTCTCAC GGGCGTACCA AAGACCCAGG GCTTGCTTGA AAGGTTCTTG	6180

850

TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTTAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTCGTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AATCGGCGG TCCAATTCAA GTCTTTTTC TAGCAAGTCT TCAATTTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGCTGCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATGTGTCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAG GAAGGAAGTT	6780
TGGTTTTCCT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCAA AAGTCTCCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTTGTC	6900
AAAATCAGCA ACTAGGCGGT GGTATTGAC AAAGTTTCC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCACT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCCTGGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTGAGCTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAATCATC TTGATAACGT GTCATCTTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGATGA GTTTGTTTAG AGAGGATCTT TCTATGTCTT TCTTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTTCTTA TCTAATTTAT GGTATTTC A GACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

851

ACCTGTCGGA TCAAAAGCCT TGCAAGAGTC TATTAACCTCT AGCAGTGCAA CCATTTCGTAA	480
TGACATGGCG GAACTAGAAA AACAAAGGTT GCTTGAGAAG GCTCATACTT CAAGTGGTCG	540
GATGCCAAGT GTTGCTGGTT TTCAGTACTA TGTGAAACAC TCACTGGATT TTGACCGGCT	600
GGCTGAAAAAT GAGGTATATG AGATGTCAA AGCCTTTGAT CAGGAATTCT TCAAATTGGA	660
GGATATTCTG CAAGAGGCTG CTAACCTACT AACAGACCTG AGTGGCTGTA CGGTAGTGGC	720
ACTGGATGTT GAGCCGAGCA GGCAACGTTT GACAGCCTTT GATATCGTTG TTTTGGGGCA	780
ACATACAGCC TTGGCGGTAT TTACCCTAGA CGAGTCGCGA ACGGTTACTA GTCAGTTTCT	840
GATTCCAAGG AACTTCTTGC AGGAGGATTT GCTGAACTG AAGAGCATCA TTCAGGAACG	900
TTTCCTCGGT CACACCGTTT TAGATATCA CTACAAGATT CGGACGGAGA TTCCGCAGAT	960
TATCCAGCGT TACTTTACAA CAACGGATAA TGTCATCGAT CTCTTGAAC ACATCTTTAA	1020
GGAAATGTTT AACGAAAACA TTGTGATGGC GGGCAAGGTC CATCTCTTGA ATTTTGCCAA	1080
TCTAGCAGCC TATCAGTTCT TTGACCAACC GCAAAAGGTG GCCTTGAGA TTCGTGAGGG	1140
GTTCGCTGAG GATCAGATGC AAAATGTTTCG TGTGCGAGAC GGTCAAGAGT CCTGTTTAGC	1200
TGACCTAGCG GTAATCAGTA GTAAGTTCCT CATTCCTTAT CGGGGAGTTG GAATTCTAGC	1260
CATTATCGGT CCAGTTAATC TGGATTACCA ACAGCTAATC AATCAAGTCA ATGTGGTCAA	1320
CCGTGTTTTG ACCATGAAGT TGACAGATTT TTACCGCTAC CTCAGCAGTA ATCATTACGA	1380
AGTACATTAA GATTGAAATC ATTAAAGGAG GCGAACATGG CCCAAGATAT AAAAAATGAA	1440
GAAGTAGAAG AAGTTCAAGA AGAGGAAGTT GTGAAAACAG CTGAAGAAAC AACTCCTGAA	1500
AAGTCTGAGT TGGACTTGGC AAATGAACGT GCAGATGAGT TCGAAAACAA ATATCTTCGC	1560
GCTCATGCAG AAATGCAAAA TATCCAACGC CGTGCCAATG AAGAACGTCA AACTTTGCAA	1620
CGTTATCGTA GCCAGGACTT GGCAAAAGCA ATCTTACCAT CTCTTGACAA CCTTGAGCGT	1680
GCACTTGCAG TTGAAGGTTT GACAGATGAT GTGAAGAAGG GCTTGGGGAT GGTGCAAGAA	1740
AGCTTGATTG ACGCTTTGAA AGAAGAAGGA ATTGAAGAAA TCGCAGCAGA TGGCGAATTT	1800
GACCATAACT ACCATATGGC CATCCAAACT CTCCCAGCAG ACGATGAACA CCCAGTAGAT	1860
ACCATCGCTC AAGTCTTTCA AAAAGGCTAC AACTCCATG ACCGCATCCT ACGCCCAGCA	1920
ATGGTAGTGG TGTATACTA AGATATAAAG CCCGTAAAAA GCTCGCAGTA AAAATAGGAG	1980
ATTGACGAAG TGTTCGATGA ACACAAGAAA ATCTATCTTT TTTACTCAGA GCTTAGGGCG	2040
TGTTTCGATTC GGCAATCTG ACGGTAGCTA AAGCAACTCG TCAGAAAACG GCAATCGCTA	2100
TGGCGTTTGC CTAGCTTCCT TACTAACTCG TCGTCGAAAT AAAATCGATT TCGACTCCTC	2160

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GTGTCGCAAT TTACATAATA GAAAACTTGT CCGAAACGAC AATAAACTAT GAAGAAAGAT	2220
AAAATATGTT TGGCTTTGTA ATAGTGAGCG AAGCGAACCA AACACGATAC TCTTCGCCGT	2280
GGCGCTATTT GCGCAAATTT TGAGACCTTA GGCTCAAAGT TTAGTCAAAG AGATTGACGA	2340
AGTCAAGCTC TGACGGCGTC GCCACTGTCT CCACTTAAGA AGAGTATCAA AAAGAAAAAT	2400
AGAAAAATTAA CTAACAAGGA GAAAAACACA TGTCTAAAAT TATCGGTATT GACTTAGGTA	2460
CAACAACTC AGCAGTTGCA GTTCTTGAAG GAACTGAAAG CAAAATCATC GCAAACCCAG	2520
AAGGAAACCG CACAACCTCA TCTGTAGTCT CATTCAAAAA CGGAGAAATC ATCGTTGGTG	2580
ATGCTGCAAA ACGTCAAGCA GTTACAAACC CAGATACAGT TATCTCTATC AAATCTAAGA	2640
TGGGAAGTTC TGAAAAAGTT TCTGCAAATG GAAAAGAATA CACTCCACAA GAAATCTCAG	2700
CTATGATCCT TCAATACTTG AAAGGCTACG CTGAAGACTA CCTTGGTGAG AAAGTAACCA	2760
AAGCTGTTAT CACAGTCCG GCTTACTTCA ACGACGCTCA ACGTCAAGCA ACAAAGACG	2820
CTGGTAAAT TGCTGGTCTT GAAGTAGAAC GTATTGTTAA CGAACCAACT GCAGCAGCTC	2880
TTGCTTATGG TTTGGACAAG ACTGACAAAG AAGAAAAAAT CTTGGTATTT GACCTTGGTG	2940
GTGGTACATT CGACGCTCTT ATCCTTGAAT TGGGTGACGG TGTCTTCGAC GTATTGTCAA	3000
CTGCAGGGGA CAACAACTT GGTGGTGACG ACTTTGACCA AAAAATCATT GACCACTTGG	3060
TAGCAGAATT CAAGAAAGAA AACGGTATCG ACTTGTCTAC TGACAAGATG GCAATGCAAC	3120
GTTTGAAAGA TGCGGCTGAA AAAGCGAAGA AAGACCTTC TGGTGTAAT TCAACACAAA	3180
TCAGCTTGCC ATTTATCACT GCAGGTGAGG CTGGACCTCT TCACTTGGA ATGACTTTGA	3240
CTCGTGCGAA ATTTGACGAT TTGACTCGTG ACCTTGTTGA ACGTACAAAA GTTCCAGTTC	3300
GTCAAGCCCT TTCAGATGCA GGTTCGAGCT TGTGAGAAAT CGACGAAGTT ATCCTTGTTG	3360
GTGGTTCAAC TCGTATCCCT GCCGTGTTG AAGCTGTTAA AGCTGAACT GGTAAAGAAC	3420
CAACAAATC AGTAAACCCT GATGAAGTAG TTGCTATGGG TGCGGCTATC CAAGGTGGTG	3480
TGATTACTGG TGATGTCAAG GACGTTGTCC TTCTTGATGT AACGCCATTG TCACTTGGTA	3540
TCGAACAAT GGGTGGAGTA TTTACAAAAC TTATCGATCG CAACACTACA ATCCCAACAT	3600
CTAAATCACA AGTCTTCTCA ACAGCAGCAG ACAACCAACC AGCCGTTGAT ATCCAGTTC	3660
TTCAAGGTGA ACGCCCAATG GCAGCAGATA ACAAGACTCT TGGACGCTTC CAATTGACTG	3720
ATATCCCAGC TGCACCTCGT GGAATTCCTC AAATCGAAGT AACATTTGAC ATCGACAAGA	3780
ACGGTATCGT GTCTGTTAAG GCCAAAGACC TTGGAAGTCA AAAAGAACAA ACTATTGTCA	3840
TCCAATCGAA CTCAGGTTTG ACTGACGAAG AAATCGACCG CATGATGAAA GATGCAGAAG	3900
CAAACGCTGA AGCCGATAAG AAACGTAAAG AAGAAGTAGA CCTTCGTAAT GAAGTAGACC	3960

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AAGCAATCTT TCGACTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG 4020
 AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAAC 4080
 TGGACGACAT GAAAACAAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA 4140
 AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GCGGCACAAG 4200
 CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGGAAAAG TAAGATGAGT 4260
 GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA 4320
 GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT 4380
 AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA 4440
 GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTGTATC GCGATGGTA CCGTATCTGA 4500
 CGAACGTTCA GCTTATAT 4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GCGTTTTTGA TTGCCTTTGC CTTGCAAGTC CATTGGAAGC 60
 CCTCCATTA TCTGATTAACT ATTTACATCT GGGTTATGCG AGGAACCCCC TTAATCTTGC 120
 AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG 180
 CAGCTATTAT TGCCTTTGTT CTCAACTATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG 240
 GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT 300
 TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT 360
 TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTTTCA 420
 ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTCTT 480
 TGGCAGGAGC CATTATTTTG ATTTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG 540
 AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA 600
 AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTTCAGTCT AAGTATTCCT GAAAAGCAAA 660
 TCCTGGCTAT CGTTGGACCT TCTGGTGGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG 720
 GTCTTGAAAC CATTGATTCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG 780

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AATTGCAGAA GCGCAATCTA CTGGGATTTG TCTTCCAAGA TTTTCAACTA TTTCCTCATC	840
TATCAGTTCT GGAAAATTTG ACTTTATCGC CTGTGAAGAC CATGGGAATG AAGCAGGAAG	900
AGGCTGAGAA GAAGGCGAGT GGACTCTTGG AACAGTTAGG ACTAGGAGGA CACGCAGAGG	960
CCTATCCTTT CTCACTATCT GGTGGGCAAA AGCAGCGGGT GGCTTTGGCG CGTGCTATGA	1020
TGATTGACCC AGAAATCATT GGCTACGATG AACCAACTTC TGCCCTGGAT CCAGAATTAC	1080
GTTTGGAAGT GGAGAAGCTA ATCTTGCAAA ATAGGGAAGT TGGGATGACC CAGATTGTGG	1140
TTACCCATGA TTTGCAGTTT GCTGAAAATA TCGCAGATGT ATTATTGAAA GTAGAACCTA	1200
AATAGGAGGA AAAATGGATG AAAAAATGGA TGCTTGTATT AGTCAGTCTG ATGACTGCTT	1260
TGTTCTTAGT AGCTTGTGGG AAAAATCTA GCGAAACTAG TGGAGATAAT TGGTCAAAGT	1320
ACCAGTCTAA CAAGTCTATT ACTATTGGAT TTGATAGTAC TTTTGTTCCTA ATGGGATTTG	1380
CTCAGAAAGA TGGTCTTAT GCAGGATTTG ATATTGATT AGCTACAGCT GTTTTGTAAA	1440
AATACGGAAT CACGGTAAAT TGGCAACCGA TTGATTGGGA TTTGAAAGAA GCTGAATTGA	1500
CAAAAGGAAC GATTGATCTG ATTTGGAATG GCTATTCCGC TACAGACGAA CGCCGTGAAA	1560
AGGTGGCTTT CAGTAACTCA TATATGAAGA ATGAGCAGGT ATTGGTTACG AAGAAATCAT	1620
CTGGTATCAC GACTGCAAAG GATATGACTG GAAAGACATT AGGAGCTCAA GCTGGTTTAT	1680
CTGGTTATGC GGACTTTGAA GCAAAATCCAG AAATTTTGAA GAATATTGTC GCTAATAAGG	1740
AAGCGAATCA ATACCAAACC TTTAATGAAG CCTTGATTGA TTTGAAAAAC GATCGAATTG	1800
ATGGTCTATT GATTGACCGT GTCTATGCAA ACTATTATT AGAAGCAGAA GGTGTTTTAA	1860
ACGATTATAA TGTCTTTACA GTTGGACTAG AAACAGAAGC TTTTGCGGTT GGAGCCCGTA	1920
AGGAAGATAC AAAGTTGGTT AAGAAGATAA ATGAAGCTTT TTCTAGTCTT TACAAGGACG	1980
GCAAGTTCCA AGAAATCAGC CAAAAATGGT TTGGAGAAGA TGTAGCAACC AAAGAAGTAA	2040
AAGAAGGACA GTAAGATAAA ATAGTGGCTG AAAGTCCGTT TTGATTAGCA AAACGTAGTT	2100
TTTTTTGTAA TCTAGGAAAA CGATAATAGC GATTGAATAT GGATAATTGA ATATGGAATA	2160
GCCCACTGTG ATTTCTAAAA CATTGTTAAA AATTGATTG ACTTCCAAAA TTAAAAATGT	2220
CTGTAATGAA ATACTGATGT AACTGTTTTA GGAACAATAA AACGCATAAT ATCAAGGTTT	2280
TTGCACCTTA CATTATGCGT TTTTGTGATT TTAAGACTTG TTAGCTGATT TTTTACAATC	2340
CTGCGAAATC TTTGATTTCT TGTGCTGACA TTGAAGAGTC GCAACGGACG TTGATTTGTC	2400
CATCTGTAAT ATGAACAAAA CCTGGTACAG TTGGGATTC ATAGCGTGAG CGGAATGCTT	2460
GCAAATCATT GAGTTGGCTT GGTCTTCAC TATTGATGAA GTAAATGTGA GCTTTGGTTT	2520
CAGCTACGAC ACCTGACAAT GTACCTGCAA ATTTACGGCA GTAAGGGCAA GTTTTGCGAC	2580

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CGATAAAGAA GGTTCAGTT TCTTTTAT CAAGAGCTTC TTGCGCACGC ACAACTGTAG	2640
TGACTTCAAG GTCTTTGATG TTATCTAAAA ATTGTTCCAT GAGATTACCT CGCTTTCATT	2700
GATAAGTCTA GTATGCCATA AAGTTTCTAA AATTGCTTAG ATTTGATACG AAAAAAGATG	2760
AGGTGGGTG GTCTCATCTT TTATAGGTCT TTATTTTACA AATGCATTGA TTTCTGCTTC	2820
GATGTTAGCA ATCTTAGCTT GTGATTCTTC GTTGGTTTCC CCTACAACTG CAATGTAGAA	2880
CTTGATTTT GTTCTGTAC CTGAAGGGCG AACGGCAATC CATGAACCGT CAGCAAGTGT	2940
GTATTTCAAC ACATCACTTG GAGGAGTTGT CAAGTTTGTA ACAGTACCGT CAGCAACAGT	3000
AGCAGTTTGT GCCTGAAGT CTTCTACGAC AGTGATAGCT GTTGGCTTCC ATTCTGTTGG	3060
AGCATTTGTG CGGAATTTAG CCATAATCGC TTTGATTTGT TCAGCACCAT CGACACCTGA	3120
AAGAGTAACA GAGATTGTTT TTTCTGCGTA GTAGCCATAT TCTTTATAGA TTTCTCGAT	3180
ACCGTCAGCA AGTGTCAAAC CACGAGAAG GTAGTAGGCA GCAAGTTCAG CAACTACAAG	3240
AACGGCTTGG ATGGCATCTT TATCACGTAC AAATGGTTTA ATCAAGTAAC CGAAGCTTTC	3300
TTCAAATCCC ATCATGTAAG TGTGGTTGTG TTTTCTTCG AATTCTTGA TTTTTCAGC	3360
GATAAATTTG AAACCTGTCA AGACGTTGAA CATAGTTGCG CCGTAGCTTT CAGCAATCTT	3420
CGTTACCAAG TCAGTTGAAA CGATAGATTT GCAGAGAGCG GCATTTTCAG GAAGAGTTCC	3480
AGCGTTTTTG TGAGCTTCCA AGATGTATTT AGCCATGATA GCACCGATTT GGTACCTGA	3540
AAGGTTGAGG TAGCTACCAT CTTTGTGAAG AACTTCAACA CCAACACGGT CAGCGTCTGG	3600
GTCAGTTGCG ACAAGAACAT CTGCACCAAC TTGACGACCA AGTTCTTCAG CAAGGGCAAA	3660
GGCTGCTTGG CTTTCTGGGT TTGGAGATGT TACAGTTGAA AAGTCTGGGT CAGCAGTTGC	3720
TTGCGCTTCA ACAACTTGAA CAGAGTCAAA TCCTGCTTGG GCAAGAGCAC GACGAGCCAA	3780
CATTTACCA GTACCATGAA GTGGTGTGTA GACAATCTTC ATGTCTTAC CAAATTCTTC	3840
AATCAAGGCT GGGTTGATGT TTATGTCCTT AACCTCTTTA AGGTATTCTA TGTCAACAGC	3900
TTGCGCGATA ACTTCAATCA AGCCAGAAGC TTTTTCAGTT TCCACATCAG CAACTTCAAC	3960
TGCAAAATGGG TTTTCGATTG CACGGATATA AGTAGTCAAA GCGTCCGCAT CGTGTGGAGG	4020
CATTTGTCCA CCGTCTTCAC CGTAAACCTT GTAACCGTTA AATGGAGCAG GGTGTGGCT	4080
GGCTGTGACC ATGATACCTG CGAAACAGTT GAGATGACGA ACTGCAAATG ATAGTTCTGG	4140
AGTCGGACGA AGGCTTTCAA ATACGTAAGA TTTGATGCCG TGTPTAGCAA GAACTGCCGC	4200
AGATTCAAAG GCAAACCTAG GTGAGAAGTG ACGGCTATCG TAGGCAATTG CTACACCGCG	4260
TTCTTTCTCG TTTCCACCTT TTGACTCAAT CAAACGAGCC AATCCTTCAG TAGCTTGGCG	4320

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AACAACGTCAG	ATGTTGATAC	GGTTTGTACC	AGCACCAACC	AAGCCACGCA	TACCTGCAGT	4380
ACCAAATTCA	AGATTGTAT	AGAAGGCATC	TTCCTTAGTT	TTTTCGTCCA	TATTTTCCAA	4440
ATCTTGACGA	AGGTAGTCAC	GAAGCTCCAC	AAAATCAACC	CATTCTGGT	AATTTCTTG	4500
GTAAGACATT	CAAAATCTCC	TTTATTTTAA	AAACATTTAA	TCAGTTTAAT	TATATCATTT	4560
TTTTTAGTTT	TAGTAAAACC	TTATCTGCTT	CGAACATCTC	TTCAAACCAG	GTCAGATTGA	4620
ATTTTGGGGT	TATATGATGT	TGAGGCTAGG	AAAAATTCAA	TTTCAGTAAA	AAAAGTAAGT	4680
CTTCTCATAA	CAAAACATTG	ATATAGTTAC	TTAGTTTTAA	ACAAGCATAT	TATAATAAAG	4740
CTATGGCATA	TAGTACTGAT	TTTAAACAGC	GAGCATTAGA	TTACATCAAA	GAGGGGCACA	4800
GCCATGTCGA	GGCAGCCAAG	TTTTTTGGTG	TTGGCGTCAG	AACTCTCTTC	ACGTGGGAAA	4860
AGAAAGACGT	GAACAAGAAC	ACATAGAGAG	GAAAAGCGA	GTCGTCAAAA	ACCGAAAGAT	4920
TCCTTTAGAG	GAATTGAAAG	CCTTTGTAGA	GGCTCATCCA	GATGCTTTTT	TACGGGAAAT	4980
TGCGGCACAT	TTTGATTGTG	CTGTTCTTTC	AGTATGGGCA	GCTTTAAAGC	AGATTAAAGT	5040
CACTTTAAAA	AAAGATGACG	AGCTTTAAGG	AACAAGACCC	AGAAAAGTAG	CCTTATTTCT	5100
TAAGAATTTT	AATAGTTTAA	AGCACCTAGC	ACCTGTTTAT	ATTGATGAAA	CAGGAATCGA	5160
CCGCTATCTC	TATCGTCCTT	ATGCAGGGGC	TCCTAGAGGG	GAGAAAGTCT	ATGAAAAGAT	5220
TAGCGGACGT	CGTTTTGAGC	GAACTTCAAT	TGTTGCAGGA	CAAGTAGACG	GAGAGTTTAT	5280
AGCTCCCATG	ATTTACAAGA	AAAGCATGAC	AAGCGATTTT	TTTGTGGAGT	GGTTCAAAAC	5340
GCAACTCCTA	CCTGCTTTGA	AGACACCTCA	TGTTATTGTC	ATGGGCAATG	CTGGTTTCA	5400
TCCCAAGAAC	ATTTTGATG	AACTCTGCAT	CCAAGATAAA	CACCTTTTCT	TACCTCTACC	5460
ACCTTATTCA	CCGGATTGGA	ATCCTATTGA	GCAAGCTTGG	GCTATCTTGA	AAAAGAAAGT	5520
GACGGATGTA	TTAAGGGAAG	TTCCAACAT	TTTTGAATGT	TTGGAATGCT	TTTTTAAAC	5580
TAGATGACTA	TAACGGTTCT	AAAGGAACCT	ATCGAGTAGT	CATTAAAAC	AAGGATACTG	5640
CTGGTTAAGA	GAAGACGGTA	TACAATCAAA	CCATTACCCG	TGTAGCCGAA	ATCGTTCAGA	5700
ATGAAGACTT	GTATCAGAAT	GAAGACTTGT	ATAAGAAAGG	TTTGAATGTT	GAACTTGCGC	5760
ACCAACAAAT	TAAGGGATT	TTTGAAGCAG	AGTTTAAAAA	TCGTATTAAT	GGAGTTCTTA	5820
ATACTAAAAA	AAAAAATAGT	ACATTAAATC	GTGTAATAA	AAAAACTATA	CACCAGAGCA	5880
ACAAAACTC	CATGATCAAT	TTGAAGCAGA	AGCAACGGAA	GATGCTAAAA	AACAAGGCGA	5940
TATTGTGTG	AATGTTGACC	AGGATTTTAT	GAGCATATCT	AAGTCTAATA	AAAGTGGTTC	6000
AGACTGGAAG	AAAACCTTCA	CAGTGAGGAT	AACCAATAGG	CTAGCAAATG	ACTTGAATAA	6060
TGCTTTGAAA	CAGGTTGATA	AAGATACTCC	TAATACCCCA	ACTTGGCTAA	ACTCAGCTGC	6120

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TTCTAAAGCT AAAGATGATG ACAGAGTATA TAAACTACTG AAGACTCTTA TACCAGGAGA	6180
AAATTACCTA TCATGTTAAG GATAATCAGC TAGAAGTAGA AACAGATAAA TACACATATA	6240
CTGCCGCTAG AAATGGTAGT AAGGAAGTTG GTATTCAAGA GTCAGATATA GCAGCAACTC	6300
TAAGTGCCGA TGAATATAAT TCTAATCGCC AAACCTTTGA GAGAGAATAC AAATACAAAA	6360
GCAAATGCCC TTAATAATGG TTGGGCTAGA TCTGGTTCTG AAGAGTTCAA AAAGTTCTCC	6420
CACCTTGTAG GGGTAGACAA AGGGATTGTG CGAACGAATG TACTGACTGG TAAAAACTA	6480
TCTGATAAGA TTAGGAAAGA AGTGGGCTCT GGAGATAGCA AACTAGGAAA AGGCGGCTAT	6540
TTCTCTACTG GGGATGTTCT ATTAGGAAAA GATGTTGTTT CTTATACCGT ACAAGTATTT	6600
TCAGAGAATA ATGAAAGAGT AGGAGTAAAC ACTCAAAGTC ACCGTGTTCA GTATAATCTC	6660
CCAATTCTAG CTGACTTTTC AGTCATCCAA GATACTGTGG AACCATCAGC AACCGTTGTT	6720
GAAAAATCA TTCCAAACT AAATATTCCC GAAGAAGAGA AAGGGAAAAT AACCGAAGAA	6780
ATCAAGAAAA AGAAAAAAC CTCAGAATTG GCAGAACTAA TCTCAGAAAA TGTGAAAGTT	6840
CGCTATGTTG ATGAACAAGG GCGTTTGCTA TCATTGAAAA ATGATACTGG AATTGGAGAA	6900
AAAGAAAGTG ACGGAACCTA CATTACCAAT AAAAAACAAC TGATTGGTAC CAGCTATAAT	6960
GTCACAGATA AAAAECTCAG TAGCATGACT ACTACTGACG GAAAATATTA TACTTTTAAA	7020
GAAGCAGATA CAAATTTCTG AAGTTTAACT GGGAATATTG TAAGCGAAGG TAGAACAGTG	7080
ACCTTAGTTT ATAGAGAAAG CGAAGCGCCA ACCACTGCTA CAGTAACAGC CAATTACTAT	7140
AAAGAAGGTA GGCAAGAGAA GTTGGTAGAG TCTGTTATAA AAGCTGATTT AGCGATAGGT	7200
TCTGAGTATA CCACAGAATC AAAAECTATT GAAGGGAAAA CAACAACCTGA GGACAAAGAA	7260
GACCGAGTTA TCACAAGGAA AACACATAC ACCTTGGTAG CAACTCCTGA AAATGCGTAC	7320
CAGAAGACGG TGCAACAGTT GACTATTACT ACCGTGAGAA TGTGAGGAA ACAGTGGTTC	7380
CCAAACAGC AACCTCTACT GAGACGAAGA CTATAACGCG TATCATTCAT TACGTTGATA	7440
AAGTTACGAA CCAAATGTA AAAGAAGATG TTGTTCAACC TGTAACCTTA AGCCGTACAA	7500
AAACTGAGAA CAAGGTCACG GGAGTTGTAA CCTACGGTGA ATGGACAACA GGAACTGGG	7560
ACGAGGTTAT ATCTGGTAAG ATTGACAAGT ACAAAGATCC AGATATTCCA ACAGTTGAAT	7620
CACAAGAAGT TACGTCAGAC TCTAGTGATA AAGAAATAAC GGTAAGGTAT GACCGTTTAT	7680
CAACACCAGA AAAACCAATC CCACAACCAA ATCCAGAGCA TCCAAGTGTT CCGACACCAA	7740
ACCCAGAACT ACCAAATCAA GAGACTCCAA CACCAGATAA ACCAACTCCA GAACCAGGTA	7800
CTCCAAAAAC TGAAACTCCA GTGAATCCAG ACCCAGAAGT TCCGACTTAT GAGACAGGTA	7860

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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTTTTAA AAATATTTCC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCAWAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGTCTT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTTAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTTC TGACAGAGAA TTTCTCTGGC ACCATAGCTG GGCAGCCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTTGTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAATCCTGT GGCATTTTAA AATCCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAACT GTGGTATCTG AGTGGTGGG AGGTTTGTAA	960
GGTCTTGGTG TTTATATGAT TCAGTCTAAA AACTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCCA TATCAGTGAA	1080
AAATATGTGA TTAATGGAA ACGTTCCTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

AAATCAAAAT GAAGAAAACA TGGAAAGTGT TTTTAAACGCT TGTAACAGCT CTTGTAGCTG	1200
TTGTGCTTGT GGCCTGTGGT CAAGGAACTG CTTCTAAAGA CAACAAAGAG GCAGAACTTA	1260
AGAAGGTTGA CTTTATCCTA GACTGGACAC CAAATACCAA CCACACAGGG CTTTATGTTG	1320
CCAAGGAAAA AGGTTATTTC AAAGAAGCTG GAGTGGATGT TGATTTGAAA TTGCCACCAG	1380
AAGAAAGTTC TTCTGACTTG GTTATCAACG GAAAGGCACC ATTTGCAGTG TATTTCCAAG	1440
ACTACATGGC TAAGAAATTG GAAAAAGGAG CAGGAATCAC TGCCGTTGCA GCTATTGTTG	1500
AACACAATAC ATCAGGAATC ATCTCTCGTA AATCTGATAA TGTAAGCAGT CCAAAGACT	1560
TGGTTGGTAA GAAATATGGG ACATGGAATG ACCCAACTGA ACTTGCTATG TTGAAAACCT	1620
TGGTAGAATC TCAAGGTGGA GACTTTGAGA AGGTTGAAAA AGTACCAAAT AACGACTCAA	1680
ACTCAATCAC ACCGATTGCC AATGGCGTCT TTGATACTGC TTGGATTAC TACGGTTGGG	1740
ATGGTATCCT TGCTAAATCT CAAGGTGTAG ATGCTAACTT CATGTACTTG AAAGACTATG	1800
TCAAGGAGTT TGACTACTAT TCACCAGTTA TCATCGCAAA CAACGACTAT CTGAAAGATA	1860
ACAAAGAAGA AGCTCGCAAA GTCATCCAAG CCATCAAAAA AGGCTACCAA TATGCCATGG	1920
AACATCCAGA AGAAGCTGCA GATATTCTCA TCAAGAATGC ACCTGAACTC AAGGAAAAAC	1980
GTGACTTTGT CATCGAATCT CAAAAACTT TGTCAAAAGA ATACGCAAGC GACAAGGAAA	2040
AATGGGGTCA ATTTGACGCA GCTCGCTGGA ATGCTTTCTA CAAATGGGAT AAAGAAAATG	2100
GTATCCTTAA AGAAGACTTG ACAGACAAAG GCTTCACCAA CGAATTTGTG AAATAATGAC	2160
AGAAATTAGA CTAGAGCACG TCAGTTATGC CTATGGTCAG GAGAGGATTT TAGAGGATAT	2220
CAACCTACAG GTGACTTCAG GCGAAGTGGT TTCCATCCTA GGCCCAAGTG GTGTTGGAAA	2280
GACCACCCTC TTTAATCTAA TCGCTGGGAT TTTAGAAGTT CAGTCAGGGA GAATTGTCCT	2340
TGATGGTGAA GAAAATCCCA AGGGGCGCGT GAGTTATATG TTGCAAAAGG ATCTGCTCTT	2400
GGAGCACAAG ACGGTGCTTG GAAATATCAT TCTGCCCTC TTGATTCAAA AGGTGGATAA	2460
GGCAGAAGCT ATTTCCCGAG CGGATAAAAT TCTTGCGACC TTCCAGCTGA CAGCTGTAAG	2520
AGACAAGTAT CCTCATGAAC TTAGCGGTGG GATGCGCCAG CGTGTAGCCT TACTCCGGAC	2580
CTACCTTTTT GGGCACAAGC TCTTCTCTT AGATGAGGCC TTTAGCGCCT TGGATGAGAT	2640
GACAAAGATG GAACTCCACG CTTGGTATCT TGAGATTCAC AAGCAGTTGC AGCTAACAAAC	2700
CCTGATCATC ACGCATAGTA TTGAGGAGGC CCTCAATCTC AGCGACCGTA TCTATATCTT	2760
GAAAAATCGC CCTGGGCAGA TTGTTTCAGA AATTAAACTA GATTGGTCTG AAGATGAGGA	2820
CAAGGAAGTC CAAAAGATTG CCTACAAACG TCAAATTTTG GCGGAATTAG GCTTAGATAA	2880

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GTAGAAAAAT AGGGAGTTGG TGAAGATTAT CCTTTACCAG CGCCCTTTTT CTTTAAAAA	2940
TGAGAAAATT TCGGTATAAT AGTCAAACAA GGTCAAGGTT TAAAGAGAGA GGTGGGTTTG	3000
TTATGAGATT TAAAAATACA TCGGATCATA TTGAGGCCTA CATCAAGGCG ATTTTAGATC	3060
AATCTGGTAT CGTGGAGTTG CAACGGAGTC AGTTGGCAGA TACCTTTCAG GTTGTTCCTA	3120
GTCAGATTAA CTACGTGATC AAGACACGCT TTACGGAAAG TAGAGGCTAC TTGGTTGAAA	3180
GTAAGCGTGG TGGCGGAGGC TACATTCGTA TAGGACGGAT TGAGTTTCT AGTCATCATG	3240
AAATGCTCCG GGAGCTGCTT TACTCGATTG GTGAGCGAGT CAGTCAAGAA ATTTATGAGG	3300
ATATTCTCCA GCTTTTGGTT GAGCAGGAAT TGATGACCAA GCAGGAGATG AATTTGCTAG	3360
AATCAGTAGC TTTGGATCGC GTTTTAGGAG AAGAAGCTCC AGTTGTTTGA GCAAACATGC	3420
TACGTCAGAT CATAACAAGG GTAGATAGAA AAGGGAAGTA AGATGAACTA TTCAAAGCA	3480
TTGAATGAAT GTATCGAAAG TGCCTACATG GTTGCTGGAC ATTTTGGAGC TCGTTATCTA	3540
GAGTCGTGGC ACTTGTGAT TGCATGTCT AATCACAGTT ATAGTGTAGC AGGGGCAACT	3600
TTAAATGATT ATCCGTATGA GATGGACCGT TTAGAAGAGG TGGCTTTGGA ACTGACTGAA	3660
ACGGACTATA GCCAGGATGA AACCTTTACG GAATTGCCGT TCTCCCGTCG TTGTCAGGTT	3720
CTTTTTGATG AAGCAGAGTA TGTAGCGTCA GTGGTCCATG CTAAGGTACT AGGGACAGAG	3780
CACGTCCTCT ATGCGATTTT GCATGATAGC AATGCCTTGG CGACTCGTAT CTGGAGAGG	3840
GCTGGTTTTT CTTATGAAGA CAAGAAAGAT CAGGTCAAGA TTGCTGCTCT TCGTCGAAAT	3900
TTAGAAGAAC GGGCAGGCTG GACTCGTGAA GATCTCAAGG CTTTACGCCA ACGCCATCGT	3960
ACAGTAGCTG ACAAGCAAAA TTCTATGGCC AATATGATGG GCATGCCGCA GACTCCTAGT	4020
GGTGGTCTCG AGGATTATAC GCATGATTTG ACAGAGCAAG CGCGTTCTGG CAAGTTAGAA	4080
CCAGTCATCG GTCGGGACAA GGAAATCTCA CGTATGATTC AAATCTTGAG CCGGAAGACT	4140
AAGAACAACC CTGTCTTGGT TGGGGATGCT GGTGTCGGGA AAACAGCTCT GCGGCTTGGT	4200
CTTGCCAGC GTATTGCTAG TGGTGACGTG CCTGCGGAAA TGGCTAAGAT GCGCGTGTTA	4260
GAACTTGATT TGATGAATGT CGTTGCAGG ACACGCTTCC GTGGTGACTT TGAAGAACGC	4320
ATGAATAATA TCATCAAGGA TATTGAAGAA GATGGCCAAG TCATCCTCTT TATCGATGAA	4380
CTCCACACCA TCATGGGTTC TGGTAGCGGG ATTGATTCTGA CTCTGGATGC GGCCAATATC	4440
TTGAAACCAG CCTTGGCGCG TGGAACCTTG AGAACGTTG GTGCCACTAC TCAGGAAGAA	4500
TATCAAAAAC ATATCGAAAA AGATGCGGCA CTTTCTCGTC GTTTCGCTAA AGTGACGATT	4560
GAAGAACCAA GTGTGCAGA TAGTATGACT ATTTTACAAG GTTTGAAGGC GACTTATGAG	4620
AAACATCACC GTGTACAAAT CACAGATGAA GCGGTTGAAA CAGCGTTAA GATGGCTCAT	4680

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CGTTATTTAA CCACTCGTCA CTTGCCAGAC TCTGCTATCG ATCTCTTGA TGAGGCCGCA	4740
GCAACAGTGC AAAATAAGGC AAAGCATGTA AAAGCAGACG ATTCAGATTT GAGTCCAGCT	4800
GACAAGCCCC TGATGGATGG CAACTGGAAA CAGGCAGCCC AGCTAATCGC AAAAGAAGAG	4860
GAAGTACCTG TCTACAAAGA CTTGGTGACA GAGTCTGATA TTTTGACCAC CTTGAGTCGC	4920
TTGTGAGGAA TCCCAGTTCA AAAACTGACT CAAACGGATG CTAAGAAGTA TTTAAATCTT	4980
GAAGCAGAAC TCCATAAACG GGTATCGGT CAAGATCAAG CTGTTTCAAG CATTAGCCGT	5040
GCCATTCGCC GCAACCAGTC AGGGATTCGC AGTCATAAGC GTCCGATTGG TTCCTTTATG	5100
TTCCTAGGGC CTACAGGTGT CGGGAAAACT GAATTAGCCA AGGCTCTGGC AGAAGTCTTT	5160
TTTGACGACG AATCAGCCCT TATCCGCTTT GATATGAGTG AGTATATGGA GAAATTTGCA	5220
GCTAGTCGTC TCAACGAGC TCCTCCAGGC TATGTAGGAT ATGAAGAAGG TGGGGAGTTG	5280
ACAGAGAAGG TTGCAATAA ACCCTATTCC GTTCTCTCTT TTGATGAGGT AGAGAAGGCC	5340
CACCCAGATA TCTTTAATGT TCTCTGACG GTTCTGGATG ACGGTGTCTT GACAGATAGC	5400
AAGGGACGCA AGGTCGATTT TTCAAATACC ATTATCATTA TGACATCGAA TCTAGGTGCG	5460
ACTGCCCTTC GTGATGATAA GACTGTTGGT TTTGGGGCTA AGGATATTCG TTTTGACCAG	5520
GAAAATATGG AAAAACGCAT GTTTGAAGAA CTGAAAAAG CTTATAGACC GGAATTCATC	5580
AACCGTATTG ATGAGAAGGT GGTCTTCCAT AGCCTATCTA GTGATCATAT GCAGGAAGTG	5640
GTGAAGATTA TGGTCAAGCC TTTAGTGCCA AGTTTGACTG AAAAAGGCAT TGACTTGAAA	5700
TTACAAGCTT CAGCTCTGAA ATTGTTAGCA AATCAAGGAT ATGACCCAGA GATGGGAGCT	5760
CGCCCACTTC GCAGAACCCT GCAAACAGAA GTGGAGGACA AGTTGGCAGA ACTTCTTCTC	5820
AAGGGAGATT TAGTGGCAGG CAGCACACTT AAGATTGGTG TCAAAGCAGG CCAGTTAAAA	5880
TTTGATATTG CATAAAAGAA TAAAAGTATC AGCATCTGAC CATAAGTCAC AGTGGAGTGA	5940
AATTCAATGA AAATCAAAGA GCAAACAGG CAGCTAGCCG CAGGTTGCTC AAAACACTGG	6000
TTTGAGGTTG CAGATAGAGC TGACGTGGTT TGAAGAGATT TTCGAAGAGT ATGAAACTAA	6060
AACCTATAGC TTCTAAACGA TCCGTGGTTT TCATCATTTA ACACAAAATT CATATGTTTA	6120
TTACCCCTCG TCGTATTTGT CTTAGAGCGT GTGTAGTAGA AAAAGAGCAG TCTTATCTGA	6180
AATTTTATT CTTTCAAAG AGACCTGTTT CTTTTTGGCA TGTCAAATCC GTTCTAGCTG	6240
GTATTTGAAA AATCAAATA ATATTCAATG AAAATCAAAG AACAACTAG GAAGCTAGCC	6300
GCAGGTGCT CAAAACACTG TTTTGAGGTT GTAGATAGAG CTGACGTGGT TTGAAGAGAT	6360
TTTCGAAGAG TATAAGCTGC AAGATGAATG ATTTCTTTGT ATTGACGTTG TTGTTGACAA	6420

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AAAGTAGCGG ATAAATGAAA TCCATTCCAT TATCATAGAT GATAGGCTGG TAGGAAATTT	6480
TCAAATAGCA TACAGGAAAT AGATGTATGG AGTTCTGGTA GTAGAAAGGG AGAGAGATGA	6540
ACATTTTAGT TGCAGATGAC GAGGAAATGA TTAGAGAAGG AATTGCAGCA TTTCTGACAG	6600
AAGAGGGTTA TCATGTCATT ATGGCTAAGG ATGGACAAGA GGTCTTGAA AAATTTCAAG	6660
ATCTCCCTAT CCATCTCATG GTACTGGATT TAATGATGCC TAGGAAGAGT GGTTTTGAAG	6720
TGTTAAAAGA AATCAATCAA AAGCACGATA TTCCTGTCAT CGTCTTGAGT GCTCTGGGAG	6780
ATGAAACTAC TCAGTCACAG GTATTTGATC TCTATGCTGA TGATCATGTG AAAAAACCTT	6840
TTTCTTTGGT ACTGCTTGTG AAGCGTATTA AGGCGCTTAT CAGACGTTAC TACGTCATAG	6900
AGGATCTTTG GCGATATCAG GATGTAACAG TGGATTTTAC CTCTTACAAA GCACATTATA	6960
AAAATGAAGA AATTGATCTC AAACCAAAGG AATTACTGGT ACTAAAGTGT TTGATTCAGC	7020
ATAAAAATCA AGTTTTAAGT AGAGAGCAGA TATTGGAAGA AATTTCAAAA GATGTAGCTG	7080
ATTTACCTTG TGATAGGGTC GTTGATGTCT ATATTCGTAC TCTTCGCAAA AAATTAGCTT	7140
TAGATTGTAT CGTGACTGTG AAAAATGTTG GGTATAAGAT TAGCTTATGA TAAAAAATCC	7200
TAAATTATTA ACCAAGTCTT TTTTAAGAAG TTTTGCAATT CTAGGTGGTG TTGGTCTAGT	7260
CATTCATATA GCTATTTATT TGACCTTTCC TTTTATTAT ATTCAACTGG AGGGGGAAAA	7320
GTTTAATGAG AGCGCAAGAG TGTTTACGGA GTATTTAAAG ACTAAGACAT CTGATGAAAT	7380
TCCAAGCTTA CTCCAGTCTT ATTCAAAGTC CTTGACCATA TCTGCTCACC TTAAAAGAGA	7440
TATTGTAGAT AAGCGGCTCC CTCTTGTGCA TGACTTGGAT ATTAAGATG GAAAGCTATC	7500
AAATTATATC GTGATGTTAG ATATGTCTGT TAGTACAGCA GATGGTAAAC AGGTAACCGT	7560
GCAATTTGTT CACGGGGTGG ATGTCTACAA AGAAGCAAAG AATATTTTGC TTTTGTATCT	7620
CCCATATACA TTTTGGTTA CAATTGCTTT TTCCTTTGTT TTTTCTTATT TTTATACTAA	7680
ACGCTTGCTC AATCCTCTTT TTTACATTTT AGAAGTGACT AGTAAAATGC AAGATTTGGA	7740
TGACAATATT CGTTTGTATG AAAGTAGGAA AGATGAAGTT GGTGAAGTTG GAAAACAGAT	7800
TAATGGTATG TATGAGCACT TGTGGAAGT TATTTATGAG TTGGAAGTC GTAATGAGCA	7860
AATTGTAAAA TTGCAAAATC AAAAGGTTTC CTTTGTCCGC GGAGCATCAC ATGAGTTGAA	7920
AACCCCTTTA GCCAGTCTTA GAATTATCCT AGAGAATATG CAGCATAATA TTGGAGATTA	7980
CAAAGATCAT CAAAATATA TGGCAAAGAG TATAAATAAG ATTGACCAGA TGAGCCACTT	8040
ATTAGAAGAA GTACTGGAGT CTTCTAAATT CCAAGAGTGG ACAGAGTGTC GTGAGACCTT	8100
GACTGTTAAG CCAGTTTATG TAGATATTTT ATCAGCTTAT CAAGAATTAG CTCATTCAAT	8160
AGGTGTTACA ATTGAAAATC AATTGACAGA TGCTACCAGG GTCGTCATGA GTCTTAGGGC	8220

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ATTGGATAAG GTTTTGACAA ACCTGATTAG TAATGCAATT' AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTTCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTCCGGTT TGGGTCTTTA CATGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTTCTCC CTTATGAACA CGGTATGGAA TTAAAGATTA GCTTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTTGTGTAG	8580
ATAAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGGGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4317 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGGCAAGGC AAAGCTGACG CGGTTTGAAG AGATTTTCGA AGAGTATTAG	60
TTGCCTTTAA AGGCATCCAC CATCGTTTGA AATTCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAATTTT CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATTCTGCC ATTTTCTTCT CCTTTTITAG TTTCATTAGT	300
TTATTCGTAA AATCTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAATT ATCGTGAAAA ATTTTTCCTAA AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATTCAACGC CTGCGATTTG TCCCCTCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTTATCCCA CTCTTTTTTC	720
TTAGCGAATT TGTTCAAAAT GTAAATGAAC TGCGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTTCACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

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TTCTTGTA	AACTA	CCTTCTTAGT	GACTTGAGCA	AGATTTTGAC	GCAAATCATC	960
TGTCAAAACA	TAAACAGTTT	GGGCTGCCTT	CAAGATGGCT	TGGTAAATCT	TATCTGGATT	1020
AAATTCAGCA	ATTCGCCAT	TACGTTTGAT	TACTTGCATA	GGTTTCTCCT	TTATTCTTTG	1080
TTTTCTTTGA	TTCTGCCAG	CATTTTTTCT	TCTTCTACTG	TCAGTTGATA	ATGTTCAAGT	1140
AAATCCGGTC	TGCGCTCGTA	GGTTTTCTTT	AAACTCTCGT	ACAATCGCCA	CTGACGAATC	1200
TTTTCATGGT	GGCCACTCAT	CAATACATCT	GGCAGACCA	TGCCTCGATA	ATCATAGGGA	1260
CGTGTGTACT	GAGGATATTC	TAAAAGACCT	GAAGAAAAAC	TATCATCTTG	GTGGCTAGAC	1320
TCCTTGCCAA	TCATTCTGG	AATCAGGCGA	ACTGTAGCAT	CAATCATGGT	CATAGCTGCC	1380
AATTCCTCAC	CAGTGAGGAC	ATAGTCACCT	AGGAAAATCT	CATCTGTTAC	CAAGGTCTTA	1440
ATGCGCTCAT	CATAACCTC	ATAGTGCCCA	CAGATAAAGA	TTAGCTCTTC	CTCTTGAGCC	1500
AAATCTTCAG	CATAAGCCTG	ATCAAAGTGC	TTTCCAGCAG	GATCAAGGAG	AATAACGCGC	1560
GGATTTTCTT	TTTCAATAGC	ATCAAAGGAA	TCGAAAATAG	GTTGTGCTCT	GAGCAACATG	1620
CCCTGACCGC	CTCCGTAGGG	CTCATCATCT	ACATGACGGG	CCTTTTCAGC	ATTTTCTCGA	1680
AAATATGAT	ACTGGATATC	CAAGAGCCCT	TTTTCTCGAG	CCTTTCCAAC	GATTGAGTGC	1740
TCCAGTGGAG	AAAACATCTC	TGGAAGAGG	GTAAAATAT	CAATCTTCAT	CGCTAACCC	1800
TTCTAAGATT	TCCACATCGA	CCCGTTTACT	TGGAATATCA	ACATTGAGAA	CCACTGGTGG	1860
GATATAAGGT	AAAAGCAAAT	CACGTTTGCC	TTTTCGTTTG	ACCACCCAGA	CATCATTAGC	1920
ACCTGGTTCG	AGGATTTCTT	TGATGGTTCC	AACCAAGCTA	TCACCCTCAT	AGACTTCCAA	1980
ACCGATAATC	TCGTGATAGT	AAAATTCACC	ATCGTCTAGG	TCATTCAAAT	CTTCCTCAGC	2040
GACCTTGAGA	CTGTATCCCT	TGTACTTTTC	GATAGTATTG	ATATGGTACA	TATCTTTGAA	2100
TTTAATAATG	TCAAAGTTCT	TCTGTTTACG	GTGGCTAGCG	ATGGTCACTG	TTTGACAAA	2160
CTGATCTTTT	TCATCAAACA	AAACCAGCTC	AGCTCCTTTT	TTAAACCGTT	CTTCTGCAAA	2220
ATCCGTCACA	GACAAGACTC	GCATCTCCCC	CTGTAATCCC	TGCGTATTAA	CGATTTTCCC	2280
AACATTAAAG	TAGTTCATCT	TGTCTCCTGT	AATCTCCTTT	TTTCCATCTT	ATTCTAACAA	2340
TTCTCGAATA	ATAGCCGCAA	TTTTTTCCGA	TTCTGACCAT	TGTAAATAAT	GGTGATTCCC	2400
TCCTAAATG	AGTTTAGTAT	TGGAAGTCCA	ATATTCTGAT	TCTCTGTACT	CTTTTCTCT	2460
ATAAGGCTGA	CAAAAACAA	ATACAGGAAT	ATGAGCTTCT	ATAGATACAT	CCTCAAAATC	2520
TTCTCAGTA	ATCTCTCCAG	ATATCTGAAA	TTCTGGATCT	TGATTTTCCA	ACTCTAAGCC	2580
TTTTTCTTGC	ATTAATTCCC	AGATTTTTTT	ATTCTGTTCA	GGACTAAATG	TTGCTTGAGT	2640
TAAGTTCTTA	AAATAAGTT	CAGGACCACA	CTCGTCAATC	AGCCTCATCT	GCTCTCCAT	2700

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TTCTGGATAA GGATTTTCTG AAAAATCAGC AAACATGACT TTTTAGTTG TCGGTTCAAT	2760
TGCTACTAAA GTCTGACGCT TAATTGGTTT CTCGAGTAAT TTGCAAGCTA AAATCCACT	2820
CCAACTATGT GCACAAAGTA TATATTGAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC	2880
CGCATCTGCA AGATTATCTA GATTPTTTCC AGCTTGGTCA TGAATCGGAC TCCTACCTGT	2940
GTTCGGAAAA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCAA GTATAAGTGA	3000
AAAATTTTCA TAACTTGGTA GCAAACCTGC TCCGTTTAAA CAACTAGCA CTTTCTTTTG	3060
CTTTTGATAA GTAACAGAGA GGCTACCAAT TTCTGTAGAT ACTTCAAACC TCTTCATAAA	3120
GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCACGT	3180
TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC	3240
CTTCCAAATT ATGTTTATGT TGGTAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG	3300
TCTTGTAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG	3360
CCAGTTCTCT GGCAAGTTCC TCGTTCGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA	3420
TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCTTCATCA	3480
GTCCGAGACT GCTGTTAATG TTCGATTAAAG TAGTCTTGA ATTGCCTAAA CGTTCAATCT	3540
TTTATAGTAT ATTGAACTA GAATAGTACA CCTTTACTTC TAAACATTG TTAGAAATCG	3600
ATTTGACTGT CCTGATCGAT TTGTCCTGTT CTGTGTTTCT TTTACTATAT CTTCTATTCC	3660
ACACAAAAA GCGAGACATC CGTCCCGCCC TTCTTATTTT TCGTCAATAA CGATTCTTAC	3720
TTTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATCGTTCTT ATCGCAGAAA TAGTGCGACC	3780
CTTACGACCG ATTACACGAC CCACATCGCT TTGATCAAGA TTCAAATGAT ATTCCAAAAA	3840
TTCTGGTGTA TCCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAAATTA AGGGTTTCAC	3900
AATCGCAATA ATGAGATTTT CAATCGTATC CATCTGTCAA CCTACTTTAA ACTTATTTTG	3960
AAAATTTAGA ATCGTGGAAT TTTTTCATA CGCCTTCTTT TGAAAGGATG TTACGTACTG	4020
TGCTTGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGGTCTTCT TTCAAAGTTA	4080
CTTGGTTTTC AGCAACAAGT GGGTTGTAAG TTCCAACGTG TTCGATGAAA CGTCCGTCAC	4140
GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTTCCTTA GAACCCATAC	4200
GAGTCAAACG GATTTTAACT GCCATTTTAA AAGTCTCATT TCTTTAATTT TTTATTTCCG	4260
TGAAATAGCT GAGCTATTTA GCACATGTTT TATTATAGCA GATTTCTGGC ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

866

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAAATT GTAGAGGGTT CTCGAAATTT CTTGAATGCT TAAAAAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCACGACC CTCCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTTGTT TTTCAAGAAT TCATCGTATT GTTTTTGCAT TTCGTTCAAT	240
ACTTTTTCGT AGGCACCTTC AGATTTCAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAATTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCA GATTCACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATCTTTCTCT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTTGTTACC AGTGTTCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCTT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTTCTGGG TTCGTATTCA AGAGGTTCAA GATTTCCATT	660
GATTTTCTCT TGTTCTTAGA GTTGTGTTGAG ATGACAAAGT TAGCAACTTG TGTTGTTTGG	720
TTTTTCTTGA TGAAGTTAGT AATTGGTTTG ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCTT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGTT GCGACGTCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTTGT GAAGAGTCTT CAAGTGTCTT TTGAAACGAG GCACTTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACGAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAATTTAT CAGATGGGAT GAAAACTTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTTCCG TTGAAGGCAA AGTTTGTAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTTACAG TATTACCCCT GATGTAAGCT	1260
GGTCAAGTG CTTTGTAAG GTCTTTACCT TCTTTTTTGT ACAATTCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTCA	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTTGTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGCTG GTTGTGACC GATTGTGAC ATTTTGATAA CAGGTTTGTG ACCTGAATCA	1560

867

GCAGCTTTTT TGCTGTTACC TGTCAAATTT CCACAAGCAG CAAGACCTGC AGCCAGAGCG	1620
ACTACACTAG CAGATGCAAA AGCATATTTT TTCCAGTTTT TCATGATAAA AACTCCTTTT	1680
TTTATTTTAA AACTTATAAA CAATGTAATG ATCTTATACT CAATAAAAAT CAAAGAGCAA	1740
ACTAGAAAAC TAGCCGACAG CTGCTCAAAG CACTGCTTTG AGGTTGTAGA TAAGACTGAC	1800
GAAGTCAGTT ACATATATCT ACGGCAAGGC GACGTTGACG CGGTTTGAAT TTGATTTTCG	1860
AAGAGTATTA ACTTCACACA AGGGAAGTTG GGAACGAGA AATGTTATTT CTCAATAAGC	1920
ACTATTCTTT CACACCACCG ATAGTCAAAC CTTTACAAA GTAGCGTTGG AAAAAAGGAT	1980
ACAAAATCGC GATTGGAAGG GTTGCAACCA CAACCATGGC CATAACGACT GTTCTTTTCG	2040
GTAGAGCAAC TCCCAGTTGA CCAATCAAGC CGACCGCTTT GGCAATGTAG TCCATATTTT	2100
GTTGGATTTG CATGAGCAAA TATTGCAATG GATACAAGTT GTCACCTCTG ATGTAAGAA	2160
GGCGCTTGAA CCAGTCATTC CAGAAACCAA GAGCTGTTAA GAGCGTGATG GTTGCATAC	2220
CTGGTAGTGA CAATGGCAA CAGATTGGA AGAAAATCCG GGCCTCACTG GCACCATCGA	2280
TACGAGCCGA TTCTAGAATG GCTTCTGGAA TGGTCTTCTT GAAGAAGGAA CGCATCAAGA	2340
TGATGTTAAA TGGTGAGAGA AGCATGGA CAATCAAGGC CCAAACAGTG TCACCAAGCT	2400
GAAGTACACG GGTCACCATG ATATAACCTG GTACCAAACC AGCGTTGAAC AACATACTGA	2460
GAAGGACGAA GATGGTAAAG AATCTGCGAT ACTTAAAGGT TGTCCGTGAA ATAGCGTAGG	2520
CATAGSTTGT TGTGATAAAG ACATTTGTCA ATGTCCCAAC TACGGTTACA AAGACAGAGA	2580
TGAAGAGGGC TTGTAGGATT TTATCCTTAA ACTGTGCCAA AAACTCAAAA CCGTCTAAGC	2640
CAAAATGGGA TGGGAAGAAG CTATAGCCGT ATTGGAGGAG GCTTTTCTCG TCTGTCACTG	2700
AAATAATGAT AACGAATACA AAAGGTAGGA TACAAGAGAG GGCAATCAAA CCCGAAATGA	2760
TACTGAAGAA GATATCTGCT TTCTTACTGA AGGAGTGAAT GCCGACATTA TCAATTTTTT	2820
CTTTTTTAAT TTTCTTTTTT GCCATATTCT CCTCCTTTCT AGAACAAAGC TGAGTTTGGA	2880
TCGACTCGTC TTGCAAGCAA GTTTGATAGG ATAACCAGAA TCAAACCAAC AACGGATTGG	2940
TAAAGACCGG CTGCTGCAGC CATAACGATA TCTGCTGTCT GAGTCAAACC ATTAAGACA	3000
TATACGTCCA AAACGTTGGT TACATTGTAA AGCTGACCAG CATTGTGTGG GATTGTAG	3060
AAGAGACCGA AGTCTGCGCG GAAGATATTT CCGACTGCAA GGATGGTCAA TACAGTTACA	3120
AGCGGAGTCA ACTGAGGAAT GGTACGTTG CGAATACGTT GCCACTTGCT AGCTCCGTCC	3180
ACTGTCGCTG CTTCTAGTA GGTGGATCA ATTCCCATGA TCGTCGCATA GTACATGACA	3240
CTGCTATATC CAAAGCCTTT CCAAATACCT AGGAAAAGTA GGAGATAGGG CCAGATGCCC	3300

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AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAACTGA TGATAACCCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTC TCTTAGAACG GAGCTCGCTG	3480
AGGATAATGG CAATCCCTAC AGATACAAC T AACCTAGAA AGATAAAGCC AAGATTGTAG	3540
AGGACAGTAT TTCGTGTGAT AATAAAGGCG TCTCTTGAAC TAAATAAGAA TCTAAAATTA	3600
TCGAGTCCGA CCCATTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCAATGTG	3660
TAGTCTTTGA AGGCAACCAC GTTCCCAAT ACTGGAATGT AAAAGAATAG AATCAACCAG	3720
AGTGCCCCCTG GCAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTTCATAA TTTCCTCCCT TTTTATTTG ATATCCATCT AAAAATCTT TTTTAGACTT	3840
TTGATAACGA TTACATTATT AGTATACTCC TATTTGCAGG TTAGGTTAAA CTCCTAATTA	3900
TAGAAAAAAC TCCACAAATT ATGTAGCAGA TTTAAACTT TATCACCCT ATCAAACAAA	3960
TGTCCTAAAT CAATTGTTTA TTTTATCTCT ATTAGCCCAG TGATGGCGTC ACTCTGTAT	4020
AAGCATCCAA CAACGGGGTA TACTGAAAA TCTCCAGACT AGGGAAGTCA GCGATAGTTC	4080
CTAATCTGGA GATTTTAAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTTTTTCATC TGCCAAGAAC	4200
AAACTGCTT TTTGAAGTTC TTTTGAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTGAGT CTTTAAAGAG TTTACTTAAT TCCTTGGCTA ATTTCTTGAG TTTGATTGTC	4320
AGACTCATCT TCTCCTGCTG TTTCTTTGCC CGCTGTTTGT CCTCCATCCT TAGTTGCTGA	4380
CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTCGA TACACCTGTC AATGATCTCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAATCAAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAAGAAG AAATCCAAAC CATCAAAACA CTTTAAAAG ACTCTCGTAC	4680
AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATAGAAAT ATTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC	4860
TATACTTGGT GGTTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 13121 base pairs
 - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATTT TTGCTAATTT	60
TATTCCCAAT TTTCTCATT GGTATTGCCA AAGCAGAAAC GATTAAGATT GTTCTGATA	120
CCGCCTATGC ACCTTTTGAG TTAAAGATT CAGATCAAAC TTATAAAGGA ATTGATGTTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGCAGC AGTCAATGCG GTTCAAGCTG GGCAAGCCGA CGCTATCATG GCAGGGATGA	300
CAAAGACTAA AGAACGTGAA AAAGTCTTCA CCATGTCTGA TACTTACTAT GATACAAAAG	360
TTGTCAATGC TACTACAAAG TCACACAAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACGTTTCCT TGAAACAATC AAAGATAAAT	480
ACGGCTTTAC TATTAACA TTTGACACTG GTGATTTAAT GAACAACAGC TTGAGTGCTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGGTC	600
AAGACCTCCA TATTGAAATG GATGGTGAAG CTGTAGGAAG TTTTGCTTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTAAACCA AGCCTTGCTCT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTCATCATCT TCAGCAGTGC	780
CAACTACAAC TACTCTCGCA GGATTAAAAG CTATTCCTGT TAAGGCTAAA TATATCATTG	840
CCAGCGATTC TTCTTTTGCC CCTTTTGTTT TCCAAAATTC AAGCAACCAA TACTCTGGTA	900
TTGATATGGA ATTGATTAAG GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCCTGGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTACAGAT GCTCGTAAGG CAACTTTTGA CTTCTCAGAA TCATACTACA	1080
CTGCTAATAC CATTCCTGGT GTCAAAGAAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGGTGTT AAAAACGGAA CTGCTTCTCA AACCTTCCTA ACAGAAAATC	1200
AAAGCAAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTCTCAAA TATTCTATCA	1320
GCCAAGGTCA AAAATTGAAA ACTCCAATCT CTGGAAGTCC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTGCAAACC	1440
TTAAAGCAAA CGGTGAATTC CAAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGG CTGCTTCAA AACAACTACA	1560

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AACAACTCCT TAGCGGTCTT GGTATCACTC TTGCTCTAGC TCTTATCTCA TTTGCTATTG	1620
CCATTGTCAT CGGAATTATC TTCGGTATGT TTAGCGTTAG CCCATACAAA TCTCTTCGCG	1680
TCATCTCTGA GATTTTCGTT GACGTTATTC GTGGTATTCC ATTGATGATT CTTGCAGCCT	1740
TCATCTTCTG GGAATTCCTA AACTTCATCG AGTCTATCAC AGGCCAACAA AGCCCAATTA	1800
ACGACTTTGT AGCTGGAACC ATTGCCCTCT CACTCAATGC GGCTGCTTAT ATCGCTGAAA	1860
TCGTTTCGTG TGGTATTCAG GCCGTTCCAG TTGGCCAAAT GGAAGCCAGC CGAAGCTTGG	1920
GTATCTCTTA TGGAAAAACC ATGCGTAAGA TTATCTTGCC ACAAGCAACT AAATTGATGT	1980
TGCCAAACTT TGTCAACCAA TTCGTTATCG CTCTTAAAGA TACAACTATC GTATCTGCTA	2040
TCGGTTTGGT TGAATCTTC CAACTGGTA AGATTATCAT TGCTCGTAAC TACCAAGTT	2100
TCAAGATGTA TGCAATCCTT GCTATCTTCT ATCTTGTAAT TATCACACTT TTGACTAGAC	2160
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TTTACACAAG CACTATGGAA AAAATGAAGT CCTAAAAGGA ATTACGACTA AGTTCTATGA	2280
AGGAGATGTT GTTTGTATCA TCGGTCCTTC AGGTTCTGGT AAGTCAACTT TCCTCCGTAG	2340
CCTCAATCTT TTAGAAGAAG TCACTAGCGG TCACATCACT GTGAACGGCT ATGATTTAAC	2400
TGAAAAAACA ACCAATGTTG ACCACGTCCG TGAAAATATC GGCATGGTAT TCCAACACTT	2460
CAACCTCTTC CCTCATATGT CTGTATTGGA CAACATCACC TTTGCTCCTA TTGAGCACAA	2520
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AGCAGATAAA GCTAATGCCA ATCCAGATAG CCTATCAGGT GGTCAAAAAC AACGTGTGGC	2640
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CCTTGACCCT GAGATGGTTG GAGACGTAAT TAACGTTATG AAGGAATTGG CTGAGCAAGG	2760
CATGACCATG ATTATCGTAA CCCATGAGAT GGGATTTGCT CGTCAGGTTG CCAACCGCGT	2820
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AATAGAAATT AGGTAGCTAG ATGTCATCTA AGGTTATTGT TACAATTTTC GGTCCGAGTG	3120
GAGACCTGGC TAAACGCAAG CTCTACCCTT CCCTTTTATG ACTATATCAA TCCGGCAATC	3180
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AATCTGTAGT TGTCGAGTCC ATCCTTGATT TGGCAGATAG TACCGAGCAA GCCCAAGAAT	3300
TTGCTAGCCA CTCTACTAT CAAAGCCATG ATGTCAATGA TTCGGAACAT TATATTGCTT	3360

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TGCGTCAATT ACAAGCTGAG CTTAATGAAA AATACCAAGC TGAACACAAT AAGCTCTTCT	3420
TCTTGCTCTAT GGCACCTCAG TTCTTTGGAA CCATTGCCAA ACACCTCAAA TCTGAAAACA	3480
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GTATCGACCA TTATCTTGGT AAGGAAATGA TCCAAAGCAT CTTTGCAGTT CGCTTTGCAA	3660
ACTTGATTTT TGAAAACGTT TGGAAACAAGG ATTTTATCGA CAATGTTCAA ATTACCTTTG	3720
CGGAGCGCTT GGTGTAGAA GAACGTGGTG GCTACTATGA CCAATCCGGT GCCCTCCGTG	3780
ACATGGTCCA AAACCACACT CTACAATTTC TTTCGCTCCT CGCCATGGAC AAACCAGCAA	3840
GCTTCACAAA AGACGAGATT CGTGCTGAAA AGATTAAAGT CTTTAAAAAC CTCTATCATC	3900
CAACTGATGA AGAACTCAA GAACACTTTA TCCGTGGGCA ATACCGCTCT GGTAAAGATTG	3960
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TCAGGTCCAG TTACTACTGG AACATCTACT CGTCGGCCCC ATTCAGCTAG CTGAGCTACT	5100

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ATAACTGTCA AGTTATCTTG GAAGTGGATG CTTTCATCGT AGCTACCATC CTTTTCATAA	5280
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GCAAAGAAGG CATTCAAGCG GGCACCGAAA CCTGTGCGAG TTTTCTTAAG ACTGCGGTCA	5520
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CCTGCATCAT ATGTAAGTCA TTAAGATTGT CTCCAAAAGC CATGACCTGA TCCATTGTGA	6900

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AAGCCTCCCC ATCTTCCAGC GTTCTTCTG TGAAGTTGGT TGTAATTTG AAAATGTCAT	7080
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CCCACC CGA AGCTACCGCA AAGTAAATCC CTTTTCCTT GTAGGAAACC AAGAGAGACT	7440
TGAGACGATC CATATCAAAG CGTCCATTC CATCTAGGAA GGTCCGTC ATATCCGTTG	7500
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AATAGCCTTA CGTTGTCCTT CCAAGTCTAA AAACCTACGG GCATTCTCAG CTTGCTTCTC	10440

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CTGAGTTTGC TGCAGTTTAC TCTCGGTTTC TTTTCTGCGA GTCTTGTTAT TTAATACTCC	10560
AGCAGCTTCT TCAAAAATAG CTCGTCGTTT CTCAGGCTTG GAATTAAAAA TCTCCTCAAC	10620
CTTCCCTTGG GAAATAATAG AGAAGGAATC TCGTCCCAAT CCAGTATCCA AGAAGAGGTC	10680
ATGAATATCA CGCAGACGGA CTTTCTTGCC GTCAATCTTG TATTGCTAT CTCCACTACG	10740
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GATGATATCC GGCATCTTGC CCCACGGAG ACTCTTGACA CTAGACTCCC CCAAAGCCCA	10920
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ACCTTGGTCA AAAACGACCT TGGTCTTATC AGCAAAAGAC TTGAACCCCT GAATTTCGAT	11040
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GCTAATTTCT TAGAACGACC TTGGCCTTGA CCGATGCTCT TACCTTCAAC AAGAACTTCT	11160
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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTGTGA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAAGTGT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCCTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAAC	12480
GCCAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTCCAATTC ACGCACAGCT TCTGGTGTTC	12600
CCACATTCC AGCAATGACA AAGGTATCTG GCAATTCTTT CTGTAGTGT TGAATCATAG	12660
AAATCAGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCTTAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAT TGGAATTC TTTAACATAT CGATGTCTCG TTTCTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTACGGT TGAAGTTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAATTC GTAAAACTA TATTCGTATT TTAGCGGGAG ATCGTGTTAC TGTCGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAATAATC GAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTGCGAATA CTGTAAAGTT	240
ATTCTGCTGA ATGGTCGTGT TATGGTAATT TGCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTGCTGGA ATCTCAGAAG ATGTTCTGTG ACGTGATCTT ACATCAGATC	480

877

AAGAAGATGC TATCCGTCGT GAAGTGGATG CAATCAAAGT TGAAGGTGAC CTTCGTCGTG	540
AAGTAAACTT GAACATCAAA CGTTTGATGG AAATCGGTTC ATACCGTGGT ATCCGTCACC	600
GTGCTGGACT TCCTGTCCGT GGACAAAACA CTA AAAACAA CGCCCGCACT CGTAAAGGTA	660
AAGCTGTTGC GATTGCTGGT AAGAAAAAAT AATATAGGAG GTAAAAGTCT TGGCTAAACC	720
AACACGTAAA CGTCGTGTGA AAAAGAATAT CGAATCTGGT ATTGCTCATA TTCACGCTAC	780
ATTTAATAAC ACTATTGTTA TGATTACTGA TGTGCATGGT AATGCAATTG CTGGGTCATC	840
AGCTGGTGCT CTTGGTTTCA AAGGTTCTCG TAAATCTACA CCATTCGCTG CTCAAATGGC	900
TTCTGAAGCT GCTGTAAAT CTGCACAAGA ACACGGTCTT AAATCAGTTG AAGTTACTGT	960
AAAAGGTCCA GGTTCGTGGT GTGAGTCAGC TATTCGTGCG CTGCTGCCG CTGGTCTTGA	1020
AGTAACAGCA ATTCGTGATG TGACTCCAGT GCCACACAAT GGTGCTCGTC CTCCAAACG	1080
TCGCCGTGTA TAATCATCGC ATTACACTGC TTTTCGTTA AGAGGGAGTA ACTAAATGAT	1140
CGAGTTTGAA AAACCAAATA TAACAAAAAT TGATGAAAAT AAAGATTATG GCAAGTTTGT	1200
AATCGAACCA CTTGAACGTG GCTACGGTAC AACTCTTGGT AACTCTCTTC GTCGTGTACT	1260
TCTAGCTTCT CTACCAGGAG CAGCTGTGAC ATCTATCAAC ATTGATGGTG TGTTACATGA	1320
GTTTGACACA GTTCCAGGTG TTCGTGAAGA CGTGATGCAA ATCATTCTGA ACATTAAAGG	1380
AATTGCAGTG AAATCGTACG TTGAAGACGA AAAAATCATC GAACTGGATG TTGAAGGTCC	1440
TGCTGAAGTA ACAGCTGGTG ACATTTTGAC AGATAGCGAT ATTGAAATTG TAAATCCAGA	1500
TCATTATCTC TTTACAATCG GTGAAGGTTT TTCTCTAAAA GCGACTATGA CTGTTAACAG	1560
TGGTCGTGGA TATGTACCTG CTGATGAAAA TAAAAAGGAT AATGCACCAG TTGGAACACT	1620
TGCTGTAGAT TCTATTTATA CACCAGTTAC AAAAGTCAAC TATCAAGTGG AACCTGCTCG	1680
TGTAGGTAGC AATGATGGTT TCGACAAATT AACCCTTGAA ATCTTGACAA ATGGAACAAT	1740
TATTCCAGAA GATGCTTTAG GGCTTTTCAGC ACGTATTTTG ACAGAACATC TTGATTTGTT	1800
TACAAATCTT ACTGAGATTG CTAAGTCAAC TGAAGTGATG AAAGAAGCTG ATACTGAATC	1860
TGACGACCGT ATTTTAGATC GTACGATTGA GGAAGTGGAC TTGTCTGTGC GTTCATACAA	1920
CTGTTTAAAA CGTGCCCGTA TCAATACTGT GCATGATTTG ACAGAAAAAT CTGAAGCAGA	1980
GATGATGAAA GTACGAAATC TTGGACGCAA GAGTTTGGAA GAAGTGAAAC TCAAACTCAT	2040
TGATTTGGGT CTTGGATTAA AAGATAAATA AAGGAGGAAT ACATGGCTTA CCGTAAACTA	2100
GGACGCACTA GCTCACAACG TAAAGCAATG CTTGCGGATT TGACAACTGA CCTTTTGATC	2160
AACGAATCAA TCGTGACAAC TGAAGCTCGT GCTAAAGAAA TCCGTAAAC TGTTGAAAAA	2220

878

ATGATTACTC TAGGTAAACG TGGTGATTG CATGCACGTC GTCAAGCAGC TGCTTTCGTA	2280
CGTAATGAAA TCGCATCTGA AACTATGAT GAAGCAACTG ATAAGTACAC TTCTACTACA	2340
GCAC TTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CGGTGGATAC	2400
ACTCGTATCC TTA AAACTGA ATCACGTCGT GGTGATGCAG CGCCAATGGC GATCATCGAA	2460
TTAGTATAAA ATCATCAATT TTGTTGAGTG TTATGATGAT GGAGTCTTGT GCTCTTAGTC	2520
TAGCTCTGGT CTACCGCTAG GATTTCGGTC CTAGCGGGAA CACTCATCAT AAGTTGGGAT	2580
AGTAGACGCT TGTTTACGAA ATTGTTTTT TCTTAAGAAC AACTTCGTAA GCAGGCGTTT	2640
TTGAGTATTT TCGTTAGAAT TATGCTATAC TATTTGAAAA GAATCCTGTT TAATGTTAAG	2700
GTTTCTTATT TTAAGAAGAA TTGAGATTTA CTTATGAAAG CCATTATAAC TGTGTTGGT	2760
AAAGATAAAT CTGGAATTGT TGCAGGTGTT TCTGGTAAAA TTGCAGAATT AGGATTGAAT	2820
ATTGACGATA TCTCTCAAAC TGTCTTGGAT GAATATTTTA CGATGATGGC TGTGTATCT	2880
AGTGATGAAA AGCAAGATTT TACCTATCTT CGTAATGAAT TTGAAGCTTT TGGGCAAAC	2940
TTGAATGTAA AAATCAATAT TCAGAGTGCA GCGATTTTCG AAGCTATGTA TAATATCTAG	3000
GAGGTCATCA TGGATATTAG ACAAGTTACT GAAACCATCG CCATGATTGA GGAGCAAAAC	3060
TTGCATATTA GAACCATAC CATGGGGATT TCTCTTTTGG ACTGTATCGA TCCAGATATC	3120
AATCGTGCTG CGGAGAAAAT CTATCAAAAA ATTACGACAA AGGCGGCTAA TTTAGTAGCT	3180
GTTGGTGATG AAATTGCCGC TGAGTTGGGA ATTCTATCG TTAATAAGCG TGTATCGGTG	3240
ACACCTATTT CTCTGATTGG GGCAGCGACA GATGCGACGG ACTACGTGGT TCTGGCAAAA	3300
GCGCTTGATA AGGCTGCGAA AGAGATTGGT GTGGACTTTA TTGGTGGTTT TTCTGCCTTA	3360
GTACAAAAAG GTTATCAAAA GGGAGATGAG ATTCTCATCA ATTCCATTCC TCGCGCTTTG	3420
GCTGAGACGG ATAAGTCTG CTCGTCAGTC AATATCGGCT CAACCAAGTC TGGTATTAAAT	3480
ATGACGGCTG TGGCAGATAT GGGACGAATT ATCAAGGAAA CAGCAAATCT TTCAGATATG	3540
GGAGTGGCCA AGTTGGTTGT ATTCGCTAAT GCTGTTGAGG ACAATCCATT TATGGCGGGT	3600
GCCTTTCATG GTGTTGGGGA AGCAGATGTT ATCATCAATG TCGGAGTTTC TGGTCCTGGT	3660
GTTGTGAAAC GTGCTTTGGA AAAAGTTTCGT GGACAGAGCT TTGATGTAGT AGCCGAAACA	3720
GTTAAGAAAA CTGCCCTTAA AATCACTCGT ATCGGTCAAT TGGTTGGTCA AATGGCCAGT	3780
GAGAGACTGG GTGTGGAGTT TGGTATTGTG GACTTGAGTT TGGCACCAAC CCCTGCGGTT	3840
GGAGACTCTG TGGCACGTGT CCTTGAGGAA ATGGGGCTAG AAACAGTTGG CACGCATGGA	3900
ACGACGGCTG CCTTGGCCCT CTTGAACGAC CAAGTTAAAA AGGGTGGAGT GATGGCCTGC	3960
AACCAAGTCG GTGTTTATC TGGTGCCTTT ATCCCTGTTT CTGAGGATGA AGGAATGATT	4020

879

GCTGCAGTGC AAAATGGCTC TCTTAATTTA GAAAACTAG AAGCTATGAC GGCTATCTGT	4080
TCTGTTGGAT TGGATATGAT TGCCATCCCA GAAGATACGC CTGCTGAAAC TATTGCGGCT	4140
ATGATTGCGG ATGAAGCAGC AATCGGTGTT ATCAACATGA AAACAACAGC TGTTCTGTATC	4200
ATTCCCAAAG GAAAAGAAGG CGATATGATT GAGTTTGGTG GTCTATTAGG AACTGCACCC	4260
GTTATGAAGG TTAATGGGGC TTCGTCTGTC GACTTCATCT CTCGCGGTGG ACAAATCCCA	4320
GCACCAATTC ATAGTTTAA AAATTAAGAA AATAGGAGAA ATTTTAAGTT CTATTTAAGA	4380
TTAGACGTGT ATACTATAAT CATTAATAA AGACCTCCTA ATATTATTTG AAACAGATAA	4440
CACTGAATTA GTTTGAATTT GATTTTCATC TAATATCTTT ATTTAATGAA CTCCTAAACT	4500
TTTTCATAAT AATCTCCTTC AAAAGTCGCC TGTATGGGTG GCTTTTATTT TATCATTCAT	4560
GATATAATAG AAGCAAACGG AGGACGGAAA ATGGTAAAG TACGATTGTA TTTGGTACGT	4620
CATGGCAAGA CCATGTTTAA CACGATTGGT CGCGCGCAAG GTTGGAGCGA TACTCCCTTA	4680
ACTGCTGAAG GTGAACGAGG GATTCAAGAG TTAGGAATCG GTTTGCGAGA ATCTGATCTA	4740
CAGTTTGAGC GTGCTTATTC GAGTGATTCT GGTGCTACCA TTCAGACCAT GCGAATTATC	4800
CTTGAAGAAC TTGGCTTGCA GGGGAAATC CCTTATCGCA TGGACAAGCG TATCAGAGAA	4860
TGGTGTTCG GTAGTTTGA TGGAGCCTAT GATGGCGATC TTTTCATGGG CATTATTCCT	4920
CGTATCTTTA ATGTGGACCA CGTTCACCAA TTGCTTATG CTGAAGTGGC TGAGGGCTTG	4980
GTAGAGGTCG ATACAGCTGG TTGGGCTGAA GGCTGGGAAA AACTCAGTGG CCGAATCAAG	5040
GAAGGCTTTG AAATGATTGC AAAAGAAATG GAAGATCAAG GTGGAGGTAA CGCCCTTGTT	5100
GTCAGCCATG GAATGACTAT TGGAAACCATT GTTTATCTGA TTAATGGCAT GCATCCGCAT	5160
GGTCTGGATA ATGGTAGCGT GACAATCCTT GAATATGAGG ACGGCCAGTT TAGGGTTGAA	5220
GTGTGCGGTG ACCGTAGTTA CCGAGAGCTA GGACGTGAGA AGATGGAAGA AGGCTCTATT	5280
TAATCAGTCT AGACTTGCTT GCCATGAGCT AGGGATTGTA TAAGAATATC AAGATAAGAA	5340
AAAACAGCCC AGGGCACTCC TTTCGGCTGT TTTTGATGTG GAAAACTAAA GTGTAATGCT	5400
ATTGCTTTTA GAGATTTTCA TAAACAAGAG CAAGGAACCT ACTGTTAGAA CAGTCAGGAT	5460
AGTTGACAAG GTTGC GGCTA CACCGTAATT TCCTCTGAGA ACCTCTGTAT AAATAGCTAC	5520
AGTCATTGTT CTTGTTTGA CATTGTAGAG GAGGATAGAA GTAGAGAGTT TTGAAATCAT	5580
TGTGACTCAA GATAAGATGG CTCCAGAAAT GATACCAGAT AGCATCATTG GAGTTGTAAT	5640
CTTAGCAAAG GTATTGAGAC GACTACTTCC TAAGCTTTCA GCAGCTTCTT CAATACTTGG	5700
TGCTATTTGT TGTAAGCTAG CAACAGATGA GCGAATAGTA TAAGGTAATC TTCTGGCAGA	5760

880

TAGAGACATA ATCAAGATGA AAGCAGTCCC TGTAATCATA AGAAATCCAC TTCCAAATAG	5820
ACCAGTATTG AAGGAAGAAA TGAAGGCAAT CCCTAGAACG GTTCCTGGTA CAATATAAGG	5880
TACCATACTG AGGCTGTCAA TTAAGTTTGT AAACAAATTC CGTTTCTAA CGGCTAGGTA	5940
GGAGATAAAT GTCGCAAATA GAACAAC TAGTAAAGGCA ATCAAAGGGA TACGAATGGT	6000
ATTGAAAATA GCAGATCCCA TACGATGGAA AGCTACCTTG TAACTGTTTG GAGAATAACC	6060
TTTAACAGAT ACCATACCTG ATGTTTTTAG GAAAGAGGTA TAAATTAAGT AGATTGAGG	6120
TAAAACAGAG ATAAAGATAA TTCCGTAGAC TGTTGCATAA ATGGCAGCCA TTTTTCCTTT	6180
TGTAGTTTTT TTAGGCTCAA TTGGATGGAG CAGATTCATG CTGAAACTGT AGCGGTTTGC	6240
AATGTGTTTT TGGATAAGGA AAATTGCCAA GGCAATGATA ATCGCCATAA TTGCAAAGC	6300
AGAATTTCCT CCAACCTCGC TAATAAATTG GGTATAAATC AGGACAGGGA AAGTCCGATA	6360
CCCTTCGCCA ATCAACATAG GCGTTCCAAA GTCTGAGAAT GCTCTCATAA ATACAAGCAA	6420
GGAGCTGCTA GTAAGGTTGG AACTAGGAGA GGTAAAACAA CCGTTACGAT AGGTTTAAAT	6480
CCGAAGGACC CCATGCTTTC AGCTGCTTCA AGTAGAGAAT TGTCAATACT GTTCATTGTT	6540
CCAGCAACAT ATAGAAATAC CAGTGGGAAT AGTTGCAGTG TAAAGACAAG TACAATTCCT	6600
TTGAATCAAT AAATATCGAT AGCTGGAAGA TAAAGGGCAT TTGTCAAAAA TTTAGTGATG	6660
ACCTCATTTT GTCCTAGCAA GAGAACCCAG GAGTAGGCTC CTACGAAAGG AGCTGACATG	6720
GAAGCAATGA TAATCAATAT TTGTAGAAAT TTCTTCCCCT TGAAGTCATA CATAGAGAAG	6780
AGATAAGCTA ATAGGGTTCC TACAACCTAAG GAAGTGATAG TAGCGGTAAT GGAAACCTTG	6840
AAACTGTTGA CTAGTGCTC AGAGTAGTAG GCTTTACTAA AGAAAGTGAC AAAATTAGCT	6900
AGTGAGAATT GTCCTTCATG TATAAGTGCT TGCTTGAGCA CGGTAACGAT AGGATAAACG	6960
AGAAAGATAG GATAGGTAAG AAAGAGGAAG AAAGAGGAAA CTGTCCAAAT ATTTAGTTTT	7020
TTACGTTCCA TGGTTGACTC CTTTTATCAG GTTTTGGGAA CCATCTGCAG AAAAGATGTT	7080
TAATTTTTGC GTATTGATTC GTAGACGAAT ACGATTGCCT TTTTGTAGAT CTCTTCAAA	7140
AGTTGATTCT TCACTAAGTT GAATTTTTGA GGCAAAACCT GTCTCAATGA AATAATCCGT	7200
ATTTAGTCCA AGATAGACGC TATCTCTAAT AGTTCCTTCA ATATCTCCAG ATTCATCTTT	7260
GATAAACTCT TCGGGACGAA TGCTTACATG AATAGCTTGC TCCTCAACCT GATCAAGAGC	7320
TGGCATTCGA AGGCATAGC CATCTGAAAA GACGATATAA GCGCCGTCGC TCCGTTTTTC	7380
AAGATTGGCA GGGATAATAT TTGTGCGTCC GATAAAGGTT GCCACAACT CATTAGCTGG	7440
TTTATGATAG AGTTCTTTTG GTCGGCCGAT TTGTGGATC ACCCCATCTT TCATAACAGC	7500
AAATTGGTCT GAAATAGCCA TGGCTTCTTC TTGGTCGTGG GTTACATAAA CAGTTGTAAT	7560

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TCCCACTTCG TGTGGATTT CTCGGATGGC TTGACGCATA TCCAAGCGAA GTTTGGCCTC	7620
CAGATTACTA AGTGGCTCGT CCATGAGGAG AACACTTGA TTAACCGCTA AGGCGCATGC	7680
CAAGGTGACA CGTTGTGTT GTCCACCACT GAGTTTATCG GGCTTTCGAT CCGCATATTG	7740
AGCAATTGTC ATGAGTTCAA GATACTTGTT GGTCTGTTGA ATCAATTCTT CTTTGGAAC	7800
CTTCTTTTGC ATAAGACCAA AAGCAACGTT GTCTCGGACA GTCAAATGTG GGAAATAGC	7860
GTAGTTTGG AAAACCATCC CGATATTGCG TTTGCTGGGT TCCATATTAT TGATTTTGT	7920
ATCATCGAAG TAAATTCCTC CACCTTCGAT ACTGTTGAAA CCTGCAATCA TACGAAGAAG	7980
GGTCGTTTC CCACATCCTG AAGCTCCAAG AAGGGTAAAG AGACTTCCTT TTGGAATTGT	8040
AATGTTCAAA TTCTCAATAA CAGGGACATC GTGGTAGATT TTTTGGCGT TAATAATTTT	8100
GATCTCACTC ATAGTGAACC TCTTTACTG TTTAGATTGG ATATCTGTAA AGACTTCGTT	8160
GTATTTCTTA ACGATATCTG ATTTATCTT GATGACATA TCATAATCTT CAGTGAGTGT	8220
TTTGATTTG TCAATTGGTT TCATGTTTC GCTTGTTTA GCATTTTAC GAACAGGACG	8280
GTTAGTAGTG GTGTACCAA GTGTATCTG TACTTCTGA GAGATAATAA AATCGATAAA	8340
TTTCTGGCA TTTTCCATAT TTTTAGATTT TTTAACGATA GCAGCACTAG CAGGTAGGAA	8400
GACGGTTCCT TCTTTGGAT AGACTACCTT AATGTTAGCT CCGTCATTTA AGAGTTTAAC	8460
TGCTGGATCT TCATAAGAGA GACCAACAGC CATTTCTCCA TCAGCGACTA CTTTATAGAC	8520
ACTAGATGAA CTGAACCGA TTTTACCATC AATAAGTGTG AAAAGATCTT TTACATAAGA	8580
CCAAGCCTTA TCATCTTGT AACCACCTG AGCTTGTAGC ATATTTGTTA ATTGAGCAAA	8640
GGCGCTAGAA GAGTTTGCTG GGTGAGCAGT TGCATTTTT CTTTTAGTT CAGGTTTGAA	8700
AAGATCGTTA TATCCTTCGA TGTTATGCC TTTAGTTAAA TCAGGGTTGA CGATTAAAC	8760
ACTACCATCT AGTGATAAG GAGTAGAGTA GCCAGTTGTG TTTGATATT CTTGATAAC	8820
ATTATCATTT TCTTTGAAG TATAGTTTC AAAGAGTTCT CCGTGGGTAG TATATTGTGT	8880
ATAAGAACCA CCAAAGATAA CATCAGCTAC AGGAACCTCT TTTCTGACT CTAGTTTTTT	8940
GAAAAGTTCT CCAGTACCAG CTGAATCAG TTCTACTTTG ATACCATATT TTTCTCAA	9000
GGCAGGAATA GTTGCTCCAA TTAAGCCCTC TGAGTTTGGT GAATAAACGA CTAGCGAACC	9060
GCGCTCTCCT TTATCAGATG AACTGTCATC GGCAGATTCA TTAGAAGAAC AAGCAGCATA	9120
ATACATCCAT TTCTTTTCA TGATGGATAC CTCCGTTGTG TTATTTAAGT TTATTTAAA	9180
ACAATGTAAG CGTTTTTAAA ACATACAATT CTATTCTATA GTGTATTGAA TCTATAACAG	9240
TACACTTGA CTGCTAAAAT ATTTCTATAA ATTAATTGA CTTTCCTGAT AGAGATGTTT	9300

882

ACATCTTATT TCAATTCAC T ATATTAGAGT AAAATTCTCT ACAAAAAGAA GAATAGCCTA	9360
TTTFACTATT CTCTGAGTG ATTTCAATTC CTTTGGGGAA ATATGGAGAT ACTTTTAAAA	9420
TCCTGACAAA TGGTTGTTTC TTTTCTAAA TCGGTGATAC TGTATCGGAG AATGCCGCTG	9480
AGGTCACAAA GGCTGCCGATA GAGCTTCTAT GGAGAATTTC TTTTGGAGA GATTTTTAA	9540
AGGAATGAGA CATCCGCTAC CTCCTTGGAA GGTTTTGG	9578

(2) INFORMATION FOR SEQ ID NO: 128:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13440 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTTG TGACGATTCT TATTTCTATC TGTGTTATCT TTTTGGGAAC TATTTTGGGT	60
GTTGCTCTGG CTTTGGGCA ACCTTCAAAG TTAAACCGC TTGTTGGTT GGCCAACTTG	120
TACGTTTGA TTTCCGTGG GACACCGATG ATGGTTCAAA TTATGATTGC CTTGCTCTT	180
ATGCATATCA ATGCTCCGAC TATTCAGATT GGAATTTTAG GTGTTGATT TTCCGCTCTG	240
ATTCAGGGA TTTGATTAT CTCTATGAAT AGTGGTGCTT ATGTTTCGGA GACTGTTCTG	300
GCCGGAATCA ATGCGGTTCC AAAAGGTCAG CTAGAAGCGG CTTATTCGCT AGGGAATTCG	360
CCTAAAAATG CGATGCGTTA TGTGATTTTG CCACAAGCAG TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTATCAC CATTATCAAG GACAGCTCCC TCTTATCAGC TATTGGGGTC	480
ATGGAGTTGT GGAATGGGGC TACAACAGTT TCTACAACAA CCTATCTACC TTTAACACCA	540
CTTTTATTTG CAGCATTTTA CTACTTGATT ATGACCTCTA TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG ACAAGGAGAT AAGAAATAAT GACAGAAACC TTGATAAAAA	660
TTGAAAAATT ACATAAATCC TTTGGAAAGA ATGAAGTATT GAAGGGCATC AACCTCGAGA	720
TTAAAGAGG AGAAGTTGTC GTTATCATCG GTCCTTCAGG GAGCGGGAAA TCTACCTTGC	780
TTGCTCTAT GAATTGTTG GAAGAAGCAA CCAAGGGGAA GGTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAT GACCTGTTTG CCATGCGTGA GAAGATGGGC ATGGTTTTTC	900
AACAATTCAA TCTCTTCTCT AATATGACTG TGATGGAAAA TATCACCTTG TCCCCTATCA	960
AGACCAAAGG TGACAGTAAG GCCGTTGCAG AGAAAAGAGC TCAGGAACCT TTGGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA GACGCTTATC CACAGAGTTT GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG TTGGCTATGG AACCAGATGT TTTGCTCTTT GACGAGCCAA	1140

883

CTTCAGCCCT AGATCCTGAG ATGGTTGGAG AAGTTCTGGC TGTATGCAA GATCTAGCCA	1200
AGTCAGGAAT GACCATGGTT ATCGTAACAC ATGAGATGGG ATTTGCCCGT GAGGTGGCAG	1260
ATCGTGTGAT CTTTATGGCA GACGGTGTGG TTGTTGAAGA CGGAACACCT GAGCAGATTT	1320
TTGAACAAAC CCAAGGACAA AGGACTAAAG ACTTCTTGAG TAAGGTTTAA TAAGTTAGCT	1380
TTGTTTAGCT ATTTGTAGCC AGCTTTAAAC GTTAAAGAGA AGATTAGTGA AAAGCTCAAC	1440
CAGAGCTTTT TCTTATAGTT TAAAGCTATA GGATTGCCTA GGAAAGAAGT GTTAGAGCTA	1500
CATTGTATTT TTTGGTATAA TTAAAGATAT TTGTAAGAAA AGAGAAGTGA TATGACACAG	1560
ATTATTGATG GGAAAGCTTT AGCGGCCAAA TTGCAGGGGC AGTTGGCTGA AAAGACTGCA	1620
AAATTAAAGG AAGAAACAGG TCTAGTGCCT GGTTTGGTAG TGATTTTGGT TGGGGACAAT	1680
CCAGCCAGCC AAGTCTACGT TCGCAACAAG GAGAGGTCAG CCCTTGCGGC TGGTTTCCGT	1740
AGCGAAGTAG TACGGGTTCC AGAGACCATT ACTCAAGAGG AATTGTTAGA CCTGATTGCT	1800
AAATACAATC AGGATCCAGC TTGGCATGGG ATTTTGGTTC AGTTGCCATT ACCAAAACAC	1860
ATTGATGAAG AGGCGGTCTT ATTGGCTATT GACCCAGAAA AGGATGTGGA TGGTTTCCAT	1920
CCTCTAAACA TGGGGCGTCT TTGGTCTGGT CATCCAGTCA TGATTCCTTC GACACCGGCA	1980
GGAATTATGG AAATGTTCCA TGAATATGGG ATTGACTTGG AAGGTAAAAA TGCAGTCGTC	2040
ATCGGTGCGT CCAATATTGT CGGAAAACCT ATGGCCCAGC TTCTTTTGGC AAAGAATGCA	2100
ACAGTAACCT TGACTCACTC ACGTACTCAT AATCTTTCCA AGGTGGCTGC AAAAGCAGAT	2160
ATTCTGGTTG TTGCAATCGG TCGTGCCAAG TTTGTGACTG CTGACTTTGT CAAACCAGGT	2220
GCGGTAGTCA TTGACGTTGG GATGAACCGC GATGAAAATG GTAAGCTCTG TGGGGATGTT	2280
GATTATGAGG CGGTTGCCCC ACTTGCTAGC CACATTACGC CAGTCCCTGG AGGTGTCGGT	2340
CCTATGACCA TTAATATGCT GATGGAGCAA ACCTATCAGG CAGCACTTAG GACATTGGAT	2400
AGAAAATAAG ATAAAAATTT TCTGAGGAAA GTGTATTTTC TATAGCTATA TCTAAAATGA	2460
TAGAAATGAA TATTAAATTT TAGAAATAAG TTTATAAAAG GAGGTTTGCG CCTCCTTTT	2520
GTTGTATAAT GGAGTGAGGT GATTAGATGA TTTTAAAAAT TTATAATGGG GAATATAGTT	2580
TACAATGGGA TGGAAATATC TACTTAGCAC TAATTGATTA TCCAAATATT CAAGAGTGGG	2640
AATTAGAAAA AATTGCTAAA TTTATAGCTT ACGAAAAACT TCATAAACGT CAAACAAGTA	2700
TTGAGTGTGC TGATTCTTGT TTAaaaaaaG AAATTTTAGA TTACATCTGT CAGCATCCCT	2760
TTCTGCCACC ATTTACTCCT ACAGATAAAA GAGTAGCCTC GACTTATGAC CTACATAAGA	2820
GGTTAGTGAC TTCAGACTAC TGTAGTCATA CTACGACTAT AGATGCAGCG ATTTCTATTT	2880

884

TTAAACTGG TCGTCTTTTA TCTGCTGTGA AAGCCTTTGG GCGAGATGCT GAGGAGTTGG 2940
TTTTGGATAG TCGAAATGCT GCATCTGATC CGATAGATTA TTTTGACTAT GTCATGTTAG 3000
GGTGGTCAAA TACAAGTTCT GGTATCGAT TGGCGATGGA GCGTTTATTA GGTGAGCTC 3060
CTTCAGAGAA AGAATTACAA GACAAGTTTA TTCCTGGAGT AAGTTTTCAT TTTATCTATA 3120
CAGATTGAT TAAAGTTCCT GGTATATTTT TTGATGGTTA CCATGCTGTA AAAATTAAGG 3180
ACATGCTTAA TTTATTAAGT GAGTTGTATA TTTGCATTAT TCCAACTCAT AATAAGAGCC 3240
AATTTGAAAA TATTATTCCA ACCAAAATAC AAGATAGGGT GTATTATCTT GACTATGCTG 3300
GAGAAGACTT AGAAGAGTGG ACTAAGAAAG TCTATCAAGT TGTTTTAAAA CAATCAGATA 3360
AAGGATAGTT GAGGAAAAAA CGATGAAAGT GATTGATCAA ACCTTACTAG AAAAAGTCAT 3420
TATTGAACGT TCTGTACAA GTCATAAAGG AGACTACGGT CGTCTGCTGT TGCTTGGTGG 3480
GACTTATCCT TATGGTGGTG CCATCATCAT GGCTGCTTTA GCAGCTGTAA AAAGCGGTGC 3540
AGGATTGGTA ACCGTTGGAA CGGACAGGGA AAATATCCCT GCTCTACACA GCCATTTGCC 3600
TGAGGCTATG GCCTTTTCTC TGCAAGATCA GTAATTGTTA CAAGAGCAAT TGGAGAAGGC 3660
AGAAGTTGTC TTGCTGGGGC CTGGTTTACG AGACGATACG TTTGGAGAAA ATCTTGTAAG 3720
ACAGGCTCTT GCTAGCTTAA AAAAGAATCA GATTTTGATT GTAGATGGAG GGGCCTTAAC 3780
CATCCTTGCT AGGACAAGTT TGTGTTTCC ATCTAACCAG CTTATCTTAA CTCCCCACCA 3840
AAAAGAATGG GAAAACTGT CTGGTATTGC TATTGAAAAG CAAAACGAAG GTACAACATC 3900
TAGTGCCCTG ACTTCTTTCC CTCAAGGAAC AATTTTGTA GAGAAAGGTC CAGCTACTCG 3960
TATTTGGCAA GTTGGCCAGT CTGATTATTA CCAGTTAAAG GTTGGCGGTC CCTATCAGGC 4020
GACTGGTGGT ATGGGTGATA CACTGGCTGG AATGATTGCA GGATTGTCAG GCCAATTTCTG 4080
ACAGGCCAGT CTCTACGAAC GTGTGGCAGT AGCAACCCAT CTTCATTCAG CCATAGCCCA 4140
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AGTAATGAAA AGATATGTCT AAAATAGTTA GACAAAAAAT GTTGATAATT TGTATCATTA 4260
TTCTTAATTC AAAAAAAG AACGTTAGT ATTCTTCTTG CTAAGAACT AAATTTGTTC 4320
GTTTTTTTAC TCTTGTAAT CTATTTTGT TAGAGTTGAT TTGGTTTACA TCCGTACTTA 4380
AATTGATTG TTAGAGCTCT ACTTTTATTA AAAAAATTCA ATTTCAAGGA TAAATAAGCA 4440
GTATTCTAAA GGTACTTTTA GATGAAATAA AAGCCTTTAC ATGGTATAAT AGAGGTAGCT 4500
CTTTAATGGA GGTGTTTGG TGGAAAATCT GAAGAAAATG GCAGGTATCA CGGCTGCTGA 4560
ATTTATCAAG GATGGGATGG TTGTAGGGCT AGGAACAGGT TCTACTGCCT ATTATTTGT 4620
CGAAGAAATC GGTGTCGAA TCAAGGAAGA AGGCTTGCTG ATTACAGCTG TGACGACTTC 4680

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TAGTGTGACC AGTAAACAGG CTGAAGGGCT CAATATCCCG CTCAAGTCTA TTGACCAAGT	4740
AGACTTTGTC GATGTGACAG TCGACGGGGC GGATGAAGTG GATAGTCAGT TTAATGGAAT	4800
CAAAGGCGGT GGTGGTGGCC TTCTCATGGA AAAGGTGGTC GCAACACCAT CAAAAGAATA	4860
CATTGGGGTG GTGGATGAAA GCAAGCTGGT CGAAAACTA GGTGCTTTTA AATTGCCAGT	4920
AGAAGTGGTT CAGTATGGTG CAGAGCAGGT CTTTCGTCTAT TTTGAACGAG CTGGCTACAA	4980
ACCAAGTTTC CGTGAAAAAG ACGGCCAACG TTTTGTGACC GATATGCAGA ATTTTATCAT	5040
TGACCTCGCC TTGGATGTCA TTGAAAATCC AATTGCTTTT GGACAAGAA TGGACCATGT	5100
CGTTGGTGTG GTGGAGCATG GTTTATTCAA CCAAATGGTG GATAAGGTAA TCGTTGCTGG	5160
ACGAGATGGA GTTCAGATTT CAACTTCAAA AAAAGGAAAA TAGAAGGGGG CATAAGATGT	5220
CTAAATTTAA TCGTATTCAT TTGGTGGTAC TGGATTCTGT AGGAATCGGT GCAGCACCAG	5280
ATGCTAATAA CTTTGTCAAT GCAGGGGTTT CAGATGGAGC TTCTGACACA CTGGGACACA	5340
TTTCAAAAC AGTTGGTTTG AATGTCCCAA ACATGGCTAA AATAGGTCTT GGAAATATTC	5400
CTCGTGAAC TCCTCTTAAG ACTGTAGCAG CTGAAAGCAA TCCAACTGGA TATGCAACAA	5460
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TCAACATTAC TGAGCCTTTC GATACTTTCT GGAACGGATT CCCAGAAGAA ATCCTGACAA	5580
AAATCGAAGA ATTCTCAGGA CGCAAGGTTA TTCGTGAAGC CAACAAACCT TATTCAGGAA	5640
CGGCTGTAT CTATGATTTT GGACCACGTC AGATGGAAC TGGAGAGTTG ATTATCTATA	5700
CTTCAGCTGA CCCTGTTTTG CAGATTGCTG CCCACGAAGA CATTATTCCT TTGGATGAAT	5760
TGTACCGTAT CTGTGAATAC GCTCGTTCGA TTACCCTTGA GCGTCCTGCC CTTCTTGGTC	5820
GCATCATTCG TCGCCCTTAT GTAGGTGAAC CAGGTAACCT CACTCGTACG GCAAACCTC	5880
GTGACTTGGC TGTATCTCCA TTTTCCCAA CTGTTTGGTA TAAATTGAAT GAGGCTGGTA	5940
TCGATACTTA TGCTGTGGGT AAAATCAACG ATATCTTTAA CGGTGCTGGT ATCAACCATG	6000
ACATGGGTCA CAACAAGTCA AATAGTCATG GAATTGATAC ACTATTGAAG ACTATGGGAC	6060
TTGCTGAGTT TGAAAAAGGA TTCTCATTCA CAAACCTAGT TGACTTTGAT GCCCTTTACG	6120
GCCATCGTCG TAATGCTCAC GGTACCCTG ATTGCTTCCA TGACTTTGAT GAACGCTTAC	6180
CTGAAATTAT CGCAGCTATG AGAGAGAATG ACCTTCTCTT GATTACTGCG GACCATGGAA	6240
ATGACCCAAC GTATGCAGGA ACGGATCACA CTCGGGAATA TATCCATTG TTGGCCTATA	6300
GCCCTGCCTT TAAAGGAAAT GGTCTCATTC CAGTAGGACA TTTTGCAGAT ATTTACGCGA	6360
CTGTTGCCGA TAACTTTGGT GTGGAACTG CTATGATTGG GGAAAGTTTC TTAGATAAAT	6420

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TGGTATAAGA TGACGCGCTA TGCTTTGCTG GTGAGAGGTA TCAATGTTGG TGGTAAGAAT	6480
AAGGTCGTCA TGGCGGAGCT TCGTCAAGAA TTGACAAACT TGGGACTGGA AAAGGTTGAG	6540
AGCTACATCA ATAGTGGCAA TATTTTCTTT ACTTCGATAG ATTCCAAAGC CCAATTGGTT	6600
GAAAAGCTAG AGACTTTCTT TGCAGTCCAT TATCCATTTA TTCAGAGCTT TTCTTTACTG	6660
AGTCTAGAGG ACTTTGAGGC GGAAC TTGAA AATCTACCAG CTGTTGGTGGAG CAGAGACTTG	6720
GCACGAAAAG ATTTTCTCTT TTACACTGAG GGT TTGGATG TGGACCAAGT CATCGCGACA	6780
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CCTTCTACC GCCACATTAC TATTCGTAAT GCTAAAACCT TTGACAAAAT TGGTCAAATG	6960
CTAAAAAAT AATAAAGGAG ACACACAATG ACATTTTAA ACAAATCCA TGAACTGCT	7020
ACTTCTCTGA AAGAAAAGGG AATTGCAGCC CCTGAGTTCG GTCTAATCCT TGGATCAGGA	7080
CTTGGAGAAT TGGCAGAAGA AATCGAAAAT CCAGTTGTAG TAGACTATGC TGAGATTCCA	7140
AACTGGGGCC GTTCAACAGT AGTCGGTCAT GCTGGTAAAT TGGTATATGG TGAAGTGGCA	7200
GGTCGCAAGG TCTTGGCTCT TCAAGGGCGT TTCCATTTCT ATGAAGGGAA TCCTCTGGAA	7260
GTGGTGACTT TCCAGTTCG TGTGATGAAA GTTCTTGGAT GTGAAGGTGT TATTGTAACC	7320
AATGCAGCTG GCGGTATCGG ATTTGGTCCT GGTACCTTGA TGGCTATCTC AGACCATATC	7380
AACATGACGG GGCAAAATCC ATTGATGGGT GAAACTTGG ATGACTTTGG CCCACGTTTC	7440
CCAGATATGT CTAGGGCCTA CACACCAGAA TACCGTGCCA CTGCCCATGA AGTGGCTAAA	7500
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GTTCCTGAAG TTATCGTGGC AGCCCACTCT GGCTTGAAAG TTCTGGGAAT TTCATGTATC	7680
ACTAACTTTG CGGCCGTTT CCAAGAAGAA CTCAATCAGC AAGAAGTTGT AGAAGTGAAT	7740
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GAATTTCTCA GTCTTATCAT ATATAGCACA ATGAGATTTT GCTTGAGTCT GCTTGTAAT	8100
AAACGAAAAG AAAGATAAGA AATAATGAAA ATTGGTCAAC GAATTATGCG CTTTGGCATA	8160
AAAAATTAAG TATCGGAGTT GTATCTGTTG TAGTCGGCTT TGATTTCTAG CTCCAGCTGG	8220

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AATTCAGCC AATGAAGTAA AGCAAGATGT AACATCTGAA GTGGTAATAG GTGTGCTAGA	8280
TTCTAAGGAG GAATTGAAAG AGTCAGAAAA TGATGCTCCA AAAC TAGAAA CTCTCTTAG	8340
AGAGGAGCCA AGACTAGCTC CTCAAACGCT TCCGGAAGCA AGTGAAGTTC TTGAAAACAA	8400
AAGGGAAGAG TCAAAAGTAG AGATAACATA ACCAGCTCAA GCGGATGATA TCCGCAAGGT	8460
TGTTGGGGAA TTAGCCAAGG ATATAAGTAT TACTAAGTTG TATATGACAG GTCATTCTCT	8520
TGGATGTTAC CTAGCTCAGA TTGCAGCGGT TGAAGCTTAC CAAAAATATC CTGATTTTTA	8580
TAACCATGTA TTGAGGAAAG TGACAACCTT CAGTGCTCCT AAAGTGATTA CTTCAGAAC	8640
TGTTTGGAA GCTAAGAATG GTTCTGGGA TGTGTTGTG GAAAGTCGTA AATTAGCTGT	8700
TAGTGAAAA ATTAAGCATT ATGTGGTTGA TAATGACAAT GTTGTGACTC CCTTGATTCA	8760
TAATAATCGT GATATTGTTA CATTTACAGG TAATTCACGC TTTAAACACC GTTCTCGTGG	8820
CTATTTTGAA AGTCCAATGA ATGATATTCC TAACTTTAAT ATTGGTAAAC AAGCTACCTT	8880
GGATAAACAT GGTATCGTG ATCCGAAATT GGATAAAGTG CGATTCTTTA AGAAACAGGC	8940
TCTGCCTCGA TCTTCTAGTC AACCAAGCGC TGAACCAATG GAAAATATTG CCTCAGGAA	9000
ACAGGTTACT CAAAGTTCGA CAGCTTTCGG AGGAGATGCT AGAAGAGCTG TGGATGGCAA	9060
AGTCGATGGT AACTATGGTC ACAATTCTGT CACTCATACA AACTTCCAAT CTAAGCCTTG	9120
GTGGCAAGTA GATTGGCTA AAGAAGAAAC CATTGCGCAA ATCAATATTT ACAACCGAAC	9180
AGACACTGCC CAGGATAGAT TGGCAAACCT TGATGTCATT CTTT TAGACA GTTCTGGTAA	9240
AGAAATTGAG TGAAAACGTA TAACATCTCC TAAAGATGTG TCAGCACAAA TTACGATTAA	9300
CCATAAAAA GCGCGCTATG TTCGGATTGA GCTAGAAGGC TATAATGCCC TCAGTCTTGC	9360
AGAAGTTGAA GTTTCTGCT TTATAGCTAC GAATGCTGAA ACGGCGACAC AAGTTTCTAA	9420
GCCAGTTCAA CCAATCAGTC AGACTCCTGT GAAGGATAAA ACATTGACAA TTCAACACAG	9480
TGGAGCTTAC ATGCCCCGCT ACTCCATAAC TTGGGAAGAA GTTCCAGTAG ATAAAGATGG	9540
AAACCAAGTT GTTCGTAGTC ATTCTTGGGA AGGAAGCGGT CGCAACCAGA CTGCAGGTTT	9600
TGTCCTCAAC CTCCCAATCA AAGAAAATAT GAGAAATCTG CGAGTTAAGA TTGAGAAAA	9660
GACGGGCCTA CTATGGAATA GATGGCAAAC AATCTATGAA AACAGACCAA TTTAGCTCA	9720
ACCCACCGT AAAATTACCC ATTGGGTAC GACATTGAAT TCCAAGGTGA GTGACGATGA	9780
TGTCTTGTA TCTGATGGTA GAATGACAGT TAGTTGTCT AGTTTATAAG AAAGTACTAC	9840
CTGAGCTTGA ATAGGACTCA GGTAGCTCTC TATGAAAGAA CAAAATTAAT ACTCAATGAA	9900
AATCAAAGAG CAACTAAGA AACTAGCCGC AGTTGCTCA AAGCACTGCT TTGAGGTTGT	9960

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AGATAAGACT GACGAAGTCA GTCACATATA TAATCCAAGG CGACGTTGAC GTGGTTTGAA	10020
GAGATTTTCG AAGAGTATAA ACAGAAAGGT AGAGCGCGTG TTCTAATTTG AACACGAGTA	10080
GAAAACTTTT CTA AAAACAA AAACGAAAGG ATGGGTAAAC TGTATTCGCT GAACTGAATA	10140
CGGGCGACTC TCCTCTAAAT CAAAATTAAG AAAGGAATTG ACCCCACCCT AAAAGTAGTG	10200
GGAAAAAGAT AGTTGATCTA GCGAGCATCG CTCACTGCGC CCAACTCCTA TTTCCCTTC	10260
GCTTTTTGAT GGGTTTGGTA TCTTTCTCAA TATAAAATAT AAAATAAAGA AAGGTAGAGC	10320
GTGTGTTTTG ATTTGAACAC GAGCGGAAAA CTCGGAAAT AGATAATCTG ACTGAAAAAT	10380
CAGGATTTCT CGTCAGGTTC CTAATTTTCA GTCGTTTTCT TCTCGCTCTT TGTATCATAA	10440
ATTATGTCTA TCCATATTGC TGCTCAGCAG GGTGAAATTG CTGATAAAAT TCTTCTTCCT	10500
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AACGAAGTGC GTAACATGTT TGGTACACT GGTACTTACA AGGGTCACTG TGTATCTGTC	10620
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TACGGTGTGA AGAAATTGAT TCGTGTGGGA ACTGCAGGTT CTTTGAATGA AGAGGTTTAT	10740
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ATGGAAGCAG CAGCTCTTTA CTATCTTGCT GCCCAATACC ATGTTGATGC GCTAGCTATC	11040
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AATACCTTCA CTGATATGAT GAAGGTTGGT TTGGAAACCT TGATTGCAGA ATAATTATAG	11160
CCAAAAAGGG GCTCTTTGTC AACTGTAGTG GGTGAAAAA AAGCTAAGCT TGAGAAAGGA	11220
CAAATTTTCG CTTTCTTTT TTGATATTCA GGGCGATAAA AATCCGTTTT TTGAAGTTTT	11280
CAAAGTCCG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGTCGCTT	11340
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GAAAGGTTTT AAAGACAGTC TGAAAAAGAG GATGAACCTG CTTGAGATTG TCCTCAATGA	11460
GTCCGAAAAA TTTCTCAGG TCTTTGTTCT GAAAGTGAAA AAGTAAGAGT TGATAGATCT	11520
GATAGTGGTG TTTCAAGTCT TCTGAATAGC TTAAAACTT GTCAAGAATT TCTTTATTTG	11580
TTAAGTGCAT GCGAAAAGTA GGGCGATAAA AACGTTTATC GCTsArTTTA CGACTATCCT	11640
GTTGGATGAG TTTCCAGTAA CGCTTGATAG CCTTGATTTC ATGAGATTTT CGTTCAAACT	11700
GATTCATAAT TTGAACACGA AAACGACTCA TGGCACGGCT GAGATGTTGG ATAATATGGA	11760

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AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACTT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTAGTGAA GGCATACTCA TCCCAAGACA	12000
TAATCTTTGG AAGCCGAGAA AAATCATGCT CAAAGTGAAA GTCATTGAGC TTGCGAATGA	12060
CAGTTGAAGT TGAAATGGCC AGCTGATGGG CAATATCAGT CATAGAAATT TTTTCAATTA	12120
ACTTTTGAGC AATTTTTTGG TTGATGATAC GAGGGATTG GTGATTTTTC TTTACCAGGG	12180
GAGTCTCAGC AACCATCATT TTTGAAsAGT GATAGCACTT GAAACGGCGT TTTCTAAGGA	12240
GAATTCTAGA AGGCATACCA GTTGTTCGA GGTAAGGGAT CTTAGACGGT TTTTGAAAGT	12300
CATrTTTCTT CATTAGACTT CCACAATCAG GGCAAGATGG AGCCTCATAA TCCAGCTTAG	12360
CGATAATTTT TTTGTGGTA TCCATATTGA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
TAATATCGAG CAGTTTTGTG ATAAATGTA ATTGTTCCAT ATGATTCTTT CTAATGAGTT	12480
GTTTTGTGCG TTTTCATTAT AGGTCATATG GGACTTTTTT TCTACACAAA AATAGGCTCC	12540
ATAATATCTA TAGTGGATTT ACCCACTACA AATATTATAG AGCCCAAAAA GGAAGCCCTT	12600
TATGAATTGT AGGACTTCCT TTTCTTATCC AGAAATTGAT CTAGCTCTCT CTGATTTTGA	12660
AGAATAGTGA CTTTATGTGA ATATTCTTGG CAAAGTTTTT GGTAATTTTC TTTTGTAGTT	12720
TTGCGGACGC CCATCCCAA GAATCCATCT GATAAACTCC CACTCAAAGC GTTCAGGGCA	12780
ATCTACCGCC ATACTTTCTC TGACTTTTCC ACGGTATTTA AGATAACGCT TAAAGGCTCT	12840
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TTCTTGGTAG TAGCACCAAG AATAATTACC ATCGATGACC CAAGCTTAT GCTTGGTGAG	12960
AAAGTTTTTT ATCTCGGTA ACATCCATTC GCAGTCACTG TCTTGCCAAC CAGGTTGAAA	13020
TTGGAGTGTG TCCATGTGCA GTTTTGGAAT GGAGTAGTAG TTAGATAACT TTTCTGCTAT	13080
AGTTGACTTA CCAGAACCAG AATATCCGAT AATTGCGATT TTCATTTTCT ACCTTTTCCT	13140
ATTTGGAGAC AAAAAACAG CCTCTATGGA CTGTTTCTTA TTTAACAAAGT TTAGCTGAAA	13200
GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCPTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAAGTT CTTCAGATGG GTTTGCTTCG AAAGCTTTTA	13320
TAGCAGTACG CATAGCTGAT TTTTGAGCTG AGTTCITTTT GATTCGTCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

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- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8512 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTC	AAACTAGAT	ACTAGTCTAT	CAAAAGTAGG	AAAGGGTTC	AAGAAAATTG	60
ATTGGAATT	TTTGAAT	CATAGAACTA	TTAGCTAATC	CCTAGTATTG	AAAAGACTGG	120
ATAGCTTCTT	TCAGGTCATC	TTGTAACTA	TTTCTCTGGT	CAAGTTGGAC	ATAGACTTCC	180
ACCAGACAGG	ATCTAAAGTT	GGAAATTTG	TAAAAATCCT	CCCTTCTTC	TATCGGAAAA	240
TCAACAGTTT	TTATCCAAGA	AGCTACTTGT	TCTTGCTCCA	ACTTCCCTTG	TAAATAGGT	300
TCATAGATCA	CTCTTGCTAA	ACGCCAATCC	TCATCATCTG	TAAAGCGAAT	CGACATTCTT	360
TTAAATAGTT	GGCCAAGTAT	ATCAAATACT	TCATGAATC	TGTTTTTAGG	AAAGTCTGGA	420
TGACAAACCA	CCTCTGTCAG	TAAATCGGCT	CCATGTGCAA	AAGCGTGAAC	CCAACCATAC	480
TGACTTGAGA	AACCCCTTGT	ATCCTTTTCT	TTTGAAAGAT	AGTGCAAGCC	TTGATTTAAA	540
AGGACATTAC	GAATTTCTGG	AGAAGGATTT	CCCAAATGAT	CAACAACCA	CTGGATTCTT	600
TCCTGGTTAT	AATTTGGTTT	TTCTTCTGCT	ATTTTCTTA	GTAAATCTTG	ATACATGGTC	660
AATACCTCTA	CATTCTAGC	AACTGTTCAA	AAAGGCAGTC	TTAAATGACT	CAATATTGAA	720
TTCTCAATTA	AATACAATCT	GATATAAAT	GACGTAAATA	ACTATCAATA	CCAGTTCTAC	780
AGTAAGTTCA	AATTTAACAT	CACGACCTTC	AACGACATTT	TTGAAAATAG	CTACAACATA	840
GACAAATAGA	ATGACGCTTA	ACAAGCCCAT	AAACATCATT	CTAAAAAATT	TTTCTATTCC	900
CCTACTCTCC	CAACTCAGCA	CTATAGGAGA	TAATCTGGTC	AACTGTGTCA	GACAAGAATT	960
GGATGGTATC	ACGGAGTGGT	TTGTCTGTTG	AAATATCAGC	ACCGATAATC	ATGGCTGACT	1020
CAAGTGGTGT	CTTGCTACCA	CCTGATTTGA	GGAGATTGAG	CCAGTCTTCA	GCTCCAGTTT	1080
CAGAATGTTT	TAGATGAAGG	TAACCAGCAG	TCGAGATAAC	TAGTCCTGCT	GAGTAAGTGT	1140
AACTATACAA	GCCCATATAG	TAGTGAGCTT	GGCGCATCCA	AGTCAGAGTT	GCATCATCGT	1200
CAATTTCAAT	AGCATCTCCC	CAGAAATCCG	TCAAAACTTC	CTTCATAATG	CTGTTGAGCT	1260
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CTTCCAAGAG	GTGGGTGATA	AAGTTATGGA	AGTAGGTGTC	TGTCAAGCGA	TGAGCCAGAG	1380
CGAAGCGTTT	TTGACGTGGG	TCATTAGACT	GGTTCTCCAA	GTAATCACTG	AGTAGCAATT	1440
CATTGAAGGT	TGACGGTGCT	TCAACATAGT	AGGTCGACAT	ATGGGCATTG	AAGTAACTTT	1500

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GATGATTGTC TGAAAAGATG AATTGACCAG AATGCCCGAT TTCATGAATC AAGGTATAGA	1560
CATCGCTCAA ACGGCCTGTC CAGCTCATGA GTACATAAGG GTGTACGCGA TATGGGTCCG	1620
CCGCATAACC ACCGGAATCC TTGCCACTGT TAGCAGCAAA GTCCACCCAG CGCTCTTCTT	1680
GGTAACGAGC AACTTCCTGA CAATATTCTT GCCCCAAAGG TTCTACCGAC TTCATGACCA	1740
AATCATAGGC ATCGTCAATA GTCACCTCAG GATTTCAGGGC GCTGTCCAAG TCCAATTTCC	1800
AGTCTGCAAA GGTCTCTTT TCAAGACCAT TTACCTTGGC AACATGCTTG AGGTATCTCT	1860
GAGCGACTGG TGCAAAGTCC TTCATGATGA GGTCAATCTG GCGGTCAAAC ATGACACGGT	1920
CCACTTCTTG TTCAGCTAGA AGATAGTCAA AGACAGAGTC GTATCCCTTC ATATCAGCCA	1980
AGAGTTTTTC AGACTTGACC TGAGCCAGAT AGGCTGCTGC AGCCGTATTT TGGTGCTTAC	2040
GAAGTCCCTC TGAGAAGGAA CGGAAGGATT TCTCACGAAC CTCAGCATCC TCATGGTTTT	2100
GGTAGAAATT CTCATAGGTC ACAAAGCTGT TTTTGTAGGT CTTGCCATGG GCTTCAAAGT	2160
CAGCCATTTT AAAATCCCCA GCTCGCATCT TAGTATAAAT GTCCTGCGGA CTGTAGAAAA	2220
CTTCACCGAG ATTTGTCAAG GCCTTCTCCA CATCTGCCCC TAAGTAGTGG GCTTTTTTGA	2280
TTTTAGCCTG ACGAATGGCA GCTGTTAAAT GTGGCAATTT ACCCAAACGG TCCAAGACTT	2340
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CAAATCCCAT CCCAGCTTGG GCAATATTGG CAAATTCGTC ATTGCTATAG TCCGTCGTCT	2460
GAGGCATAAA ACCATAGTTG CCAATATGGC TCATCTGAAT GTAGATCTGT TCCAATTCCG	2520
CAAAGGCCTT CTCGAAATCC TCAAAAGTGT GAAGATTGCC CTTGTAATCA CGGCTAAACT	2580
GGTTGATGTC TTCGCGAGCT TTCTCGATTG CACGCAAGAA ATCCTCACGG TCTTGGTATA	2640
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GCTGTTTCTG CTCGAAAAT ACGAGGACCT AGGCCTGCCA AAACGGCTCC TTTAGCTTCA	2820
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GCTCCTGTTT CAAGACCAGT GACTGCTTGC AGAAGCGCAG CGGCTTCTCC TTCTTTAGCT	2940
GATTCTTCAT AGGCTACTAT GATAGAGTCA AACTGGTCCA GCTGAGCTAG AAAATCTGCT	3000
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AGGGCAATTT TTTCTAGTTT TTCAACTTTT TTACCCAATT TCTTGCCATC CCACTTGGCA	3120
ACTGACCAGT CTGCAGGAAA GGCCAGATT TGGCTAGCCC CCAGTTCGGT TACTTTTGA	3180
GCGATGAACT CCAGCTTGTC TCCCTTGGGA AATCCAGATG CGATGGTCAC TTGGACTGGT	3240

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AGTTCCACAT TGTCATTTAA TTCTTGGACC AACTCAAAC T GACGATTTTC CATATCCAGC	3300
ACGCGCGCCA AGCGCTTGAT GCCATCATCA AAGACTAAGG TAACCTCATC CTCTTCTTTC	3360
AAGCGCATAA CCTGAAACAT ATGCTTACTG GTTTCCTTGT CCTCGATAGT GACAGGAGAG	3420
ATAGCACTGC CTTTACAAA ATACTGCTGC ATGCTAGCCT CCAATCACAC CAGAGATATC	3480
CTTGTTTTTC TTAAAGACAC AGGTATTTCCA TTCCCCTTGA ACCATGTGAG TTTCGAGGAA	3540
AAATCCAGCT GACTCAGCCG ACTGGCGCAC CATGTCCAAC TTGTCTTGA TAATGCCACT	3600
CATGATCAGG TAGCCTTCAT CTTTACCAA GCGATAAGCA TCGTCTATTA GATGAATGAG	3660
GATATCCGCC AAGATATTAG CCACAATCAC ATCTGCCTCA ATTTCCACAC CCTTAAGCAA	3720
ATCTCCAGCC GCTACATGGA TATTTTCCAT GCCAGGGTTG AGCTCAATAT TTTCTGAGC	3780
CACACGAACC GCCACATCAT CCAGGTCATA GCGGAAAATT TCTTTAGCCC CCAGAAGCGA	3840
GCTGGCAATA GAGAGAACCC CTGAACCACT CCCACATCT AGCACCGTTT CGCCACCACG	3900
AAGAACCTGT TCCAAGGCAA AAAGGCTCAT CTTGGTAGTT GGGTGGGTTT CAGTACCAAA	3960
AGCCATGCCA GGATCCAGCT TGATAATCAT TTCCCCGCA GTCGCCTCAT AGTCTGTCCA	4020
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GTCTGCCACG TCTTCTCAG CCAAGGCAGT CGTACCTATT TTAACTCTC CCAAATCCAT	4140
AAAATCTGTC AATTCTGCTA GACGAGCCTG CAAATCCGCC TCAACCACTG TCACATCCAC	4200
CGTGTCAAGG TAGTAGGCTG TCACTACGAT TTCTTCTTGC TGCTCCACCT CTGGGAAAT	4260
CTCTCCAAAG CGGTCCACAT TTCCCACATA GTCCATACTG TCTTCGATTG CGACTCCTTG	4320
CGCTCCCAGC TCAATCAAGA GATTGGAAC CAACTCCTCT CCCTCACGCT TCACTGTAAC	4380
TTTTAACTCT TGCCATGTTT CCATTATTAA TACCAAGCCC GTAAACACA AAACCAAAT	4440
AGGAAATCTT CTGAAGACGC TTGTGTCTAA GAGAAGTTTA TCTTTTGGC ACAGTGTTTA	4500
GGGCGGGTTC AGTTTAGAAA TGTAAC TGAA CCAATCCTTC TAATCACTTA CTTTAAATA	4560
ATCTTTTAAT CTCTCTTGCA ACTGAGGCAC AACTTGACTG GAACTAAGAA ATTCTCAAC	4620
ATTATCAGC TGATAGCCCT GTCCTTCATC TCCGAAGATG ATATTGTCAA ATTGTTCTTG	4680
TCTTAGCTGA CCAACCATAA AGACCGATTT CTTGCCTTTA AAAATTACGC TAGGATAAAT	4740
CTTGCTCCAA AGCAGACAGT CTTTATCTAA ATGAATTCCC AGTTCCTCAT AAATTCACG	4800
CCGAGCGCAT TCAAAAGGGC TTTCGTCCTC TTCACGGCCA CCACCTGGCA GTTCCCACAT	4860
ATTGGCCAG GGAATACTTG CCTTATCATC GCGTAAGATA GTCAAAAGCT TATCCCCACA	4920
AAACAAAGCA ATCTTGCAAC CTGTGAAATC AGAAATTTCT AGTTCCATCT TCAGTTCCTT	4980
CTAACATTTT CTTTTCAGC TCGGCTAACC AGTTTTCATA ATATCTTTTC TCATCCCTCA	5040

ACATTCGACT ACTATCCATT TTCTGTCTAG CAATCTTGAG AGCCTTACGA GTTCGATCTA	5100
CATCTTTCTT CACCTTTAAT TGATACCAGG CTTGTATCAC TTGAAGATTG GACAGTTTGA	5160
GAGACAGAAA CGATTTGACC TGTCGAATAC TAGCATATTG CTCCGCTTGC TCAAAATCTC	5220
CTTCCAACAA GGCATATGA AGCAGGGATA GTTGGGCAAC TGTCTGCATC ATCGGAGTAG	5280
TTGTCTCTC AAGTAATGCT TGAACTGCT GTTTAGCTAC TTCTTCCTTC CCTTCCAAAA	5340
TGGAACTTC ACCTTGATA CCTAATACAC CATCCGCAA ACTCCCTCGT GCATCCTCAG	5400
GAAGTGTG AACAAGTCT TTCAAATCAT ATTCTTGAGG AGCTAGCAAG GTCTGGGCAG	5460
AATGTCTCAA TACCAGGTAG GCGTATTGG TATTTTCAGG GTGTGTAGT AATTCCTCAA	5520
TTTTTGCTCC ATCGGTGATG TCGACTGGCA AAATGTTATT TAGGAAGAAA GATAAATTAA	5580
GAAAAATCCA AGTCCCTGCA AAATACCAGC TTCTTGTC AAATCCAAAC AATATCGCCA	5640
ATAATATCAA GCCGAGATGA ACCATCAAGC CTCCTGAAAG CATCAGGATG ATTCTTTGAT	5700
CGCTTTCATC CTCTTTTAAA CCAATGTATT GAGCACCAAC ATTTTTCAGA ATGGCTGTTT	5760
TACTAAGATG AAACCTGCCT GACTTTTGG TCAAAATAAA ATGTCTTAAT CCAAAGCCA	5820
CCAGCCGATA GCCTGTCAAG TAGCCACAAA AAGCATGACC CAGCTCATGA AGAATAAAGA	5880
TTAAATACAT GCTTAGAAGA GCGAAGGCAT AACCAAAAGT AAAGGCTAAA ACTGCGGAAT	5940
ACCCCAACTC TGCAAAATGCG ATTGTTCCAC AAGCAAAAGC TAGCATAATA AAGACAACAG	6000
CTAGCACATA AACCAATAA GTCCCAATTT TCTTCATAAC ACCTCCAACC AACTCCTAGT	6060
ATCTTGATA AGGATAAAAT TCTCCCTTTT CCAAGCCAAT TTTTCCTTCT TCAAAGACTT	6120
CTTGGTTCCA TTCCATGACA AATTCCTCTG CTTCTGGGTC TTCCAAAAAG TCCATGAGGA	6180
CATCTAGCCC AACCTCAGCA GTATCTTTAA GGAAAAGCGC AAAATAAGCT AAAAATTCAC	6240
GGGAAATCC TTTTGTAGGC AGGTAAGGAA TAACAGTCAA ATAGTCTTCC TCATTGACTG	6300
TTGACTTGGC AGGATTGTAG AAAAGGACCG CTTCTCAA AAGAATGTCA TCTGATGAAA	6360
CCTCTCCGTC TTCATCCACC ATCTCCACAC CGCAGCATTT TGGGCTTCCA ATAGAAAAC	6420
CACCTTAC GCATGGTTC GTTTGTCCCA GCTAATCTCA AAGTCAAAG GAAAGTTCTT	6480
GTCCAACTCT TCCTCTAAAA TATCTAAAA TCCGTATGTT GCCATTTTGT CCTCTTTCTA	6540
TGCGACTCTT TAATCGCCCC GATTGCTCGG AAATATGCTA AAATAGATAC TACCATCTTA	6600
CCACAAATTT ATTTTATGTC CTAATTATAC CATATTACCT CATTTAAACC CTTGGTATCA	6660
GTGATTTTCT TAAAAGTCTG ATTTCTTCAT TTCTCATAAA AATCAATATA AAAAGCCCTC	6720
GAAAGGGCTA ATAAATCTAT AAAATCAATA GCGAGTAAC TAGCACAAGT GGACGTGCTT	6780

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TTTTATTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTTGAACTTT CTTATCTGCA	6840
ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTCGTCCCAA CTTATCTGCC	6900
CATTTTGTTA TGGTCAAAGT CTTTTTAATG GGTTCCTGAC TTCCTAGGTA TTCTGATACA	6960
TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA	7020
TCATCTTTAA AAGGATCATT ATCAATTAAA GACAAGCTAT TGATATCTGA TGGCTGAGGT	7080
AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCCAT	7140
GCCAAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAAATC TGGGAAATGG	7200
ACAAAATAAG TCGCTTCTGT TCCGTCTGTG TCGTCATAAT AAAATAAAGC TGGATACGTA	7260
ACTAACATTT CACTACCTCC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC	7320
TTTCTTATCC CTCTTTCAGT GTACTTATTC AGCTCACCAT GAAGGATTGT GATAGGTCTT	7380
TCCCTTGTCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA	7440
TGGGCCGTAA GGAGTTTAAC CATCTCTTTT TGTGTCATAG GCATAGCGCT TTACCTCCT	7500
GACAACACCA TTATAACACG TGTTACACGT ATTGTAAAGG AGTGATACTT ATTATTCTAT	7560
TATACATAAA AGCCCCTAGA TGTGGTTCTA AGGGAAGCCA ATTTATTCAT ACCTATTTT	7620
CTAATGAGTA GTAAAACTG CTTCTTTATC GAGCAATTCA TCATCTGTAT AGTCAATTGT	7680
AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG	7740
TACTCTATAT TTTTTATCTC CAATTTTAC AAACGTATAC TCTTCGAAAA TCAAATCAA	7800
ACCACGTCAA CGTCGCCTTA CCGTACTCAA GTACAGCTG CGGCTAGTTT CCTAGTTTGC	7860
TCTTTGATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG	7920
TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTCTATTT TTCATATTTT	7980
TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTTAATGTTT	8040
TCGTACAAAT CTAAAATCTC TTTTGGAGTA TCTTCCCGGA AGAAAAGTTT TCTTTTCCCT	8100
GAAATAACTT GATCACTAAG AATCCAATGA CGAATTTGTT TTGTAAAAAT CAAAATTTCC	8160
TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACCTCT CTTTTCATTA TAGTTCATAC	8220
AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTTCTTTAG GCTCAACTAT	8280
CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCATTAAATT	8340
AAATAGTAAA AAAGATTCTA TCTCACTCCC TGATTATTAC AAAACCATTG AAATATCACA	8400
ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCATTCTA CTCAAATCCA	8460
CGTTAGAAAG GACTGCTATG CCAGACAATC TCGCGGTCG CATGCGCCn GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2869 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCA GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTtTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TCGCtCGCCA	300
ACAGGCTTTA CTCGTGAGAT TCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAATA TTAAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAACTGTA CCATTCATGT GGCTAGCACA GGTGAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACCTT CTTGCCATGT CTATAAGGAT GCAGGAAC TG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAG AAACTCGTGC TCTTGGCATT	720
GAGGTGCGTG ATTTTATCAG TTTTGACCCA CGAACTGTGC TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCCGA ACAACTCATT TTGCTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CCGTCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTAA GCTGGATATC TATCCATTTT ATGGTTCGGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCAGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTGATGCT	1260
TATCTTAAGA GCACGTGGT GGAATAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACCAG TATTTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

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GCACCATTTG AAAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCTTTG CTGCTGAGAA AATGAATATC GAACTGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTGGCATC TGTTTCCACG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGGTCGT GGACCAGTCT GGTGGGTTCC CTTTGAAGAA ATGACAGCAG AAACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TCGTCAGAAG TAGATAAACT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACCTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTGTTT ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAAGCTGA TGGAACAGTC GGTAGTAAGT CTCAAGGAGC TGCCCAGAAG	1920
AAAGCAGAAG TGGTCAATAA AGGTGATTAC TACAGCATTC AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAAACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAAGGCAG AGTTGGTCAA ACTCATCAAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCGT TACTCTGCCC GTCTGGGCTA TAGCGAACAC	2220
CAGACAGGCT TGGCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGAAAAA	2280
GCAGCCCAAT GGCTCTTGA TCATGCAGCT GATTATGGCT TTGTGTCCG TTATCTCAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTGCGTTA TGAGGAAAA	2400
GAAGCTAAG AAATTGCTGC AAGTGGTCTC AGTTTGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAATA CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTCACAAC CTCAAAACAG TGTTTTGAGT cGATTCGTCA	2580
GTTTTATCTG CAACCTCAA GCTGTACTTT GAGCAstGCG GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AAACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATTGCAAA	2820
TCCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

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CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTGCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA ATGCACTGAA GCAAGTTCTT CAGTGCTCCA CGACAAATCT	120
AGTGGGTAAC TATACTGTTT GTTCATTAACT TAATACCAGC TCTCATTCTT GCTTCTTTTA	180
GTTCCTTGCTT ACGATAACTA CGAGGGAGAA AAGCACGAAT CTCATCTTCA TTAACACCGA	240
TTTGCAACG CTTGGCATCA ATAATAATTG GACGACGCA AAGACTAGGA TACTGCTCAA	300
TCAAATGAAG CAATTCCGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAAAA	360
TTTTTGAACG AGTTGAAATG ATGTCATCAG TACCATTTC GGTCAAGGAA AGGATGTGTT	420
GCAATTCTTT TCTTGTTAAA GGAAGGTC TAATATTGTG TTCCACAAAG GGAAGTATG	480
TTTTTCTAAC CAGGCTTAG CCTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTTCTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTATG AAAAAAGCC TATTTTTC TAAGAAATAG GCTTTTTCG	660
AACGATTGAC ACAATTGGAT TTGGTTAATT CACTCTTAAC GATGGTTTAA AACGATATAT	720
ATTTTATAT ATGTAAATTA AAAACATCTT TCCTTCACT TCCTACGACT TTTCAGATAC	780
AGATAGCCAA AGAAGTTTTC ATAGAGGGCA AAAAAGAGGA GGAAGGCATG AAGAAAGAAG	840
GTCTCTGGCA AAATCATAAT AACAGGATCC TTGGCTGGAT CAAAAGCCA GGTATCATCT	900
CCCCAAAGA GAATTTGATG GAAAGAGTA AAGAATTGGT CAAAACCAAT CAAAACCTCC	960
CCAAGTCCAA TCATCACAGG TAAGACTACT AGAGCCAGGA GACTTTTTCG ATAAAGAGAC	1020
AAAAAGTCCT TTTTCACAAT CCTATTGACA AAGACATAGA AACTTGGCAG TGCTACTAGA	1080
GCTACTAGCT GAACCAATG AAAGAGATTC TTGACCACTG CGAAATGGTG CAGACCAGCT	1140
GCTGACGAAC GAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAATGTGA TTGAATGGTT TCTGGTTTAA GATAGACTCG ATTCTGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAGATCA ATTTAGTTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCCTTAGTA AAACCTGTCG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCG	1500
AATATCAGTC AAATAATTGT CCCCACCAT GATTAACTCT TCAGTTCCA AACCTAAGTG	1560
CTCAACCGCC TTGTCCATAA TGATGGCATT TGTTTTCG ATATAAACCG GCTTCACTCG	1620
TGTCGCTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGCGTTCCGT	1680
CGGGATGTTG AGGTCAGGAT TGTTCCGAT AAAATGGCA CCCTTTTGAA TAGCAAGAGT	1740

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TGCTGTGGCA AATTTTTCAT AGTCGACTTG CCAATCCAGA CCAACTACCA CGTAGGCAGG	1800
TTTTTCCTTG TCTTCCACAT AACCAGCCGC CTTGATGGCT TCCTTGAGTC CTGCTTCTCC	1860
GACGACATAG ACGGTCTTTT CAAGCCCCAA ATCATTCTATA TAGTCGATGG TTGCCAAAGT	1920
CGCTGTGTAG ACAGTCGATA GGGGCGTATC GATATTAAAA TTCTGAGCCA ACATCTCCTT	1980
AACACTCTCT GGAGTCCGGG TTGTATTGTT GGTACAAAAG AGATAGGGAA TGTCCCGCTT	2040
TTGCAATTCA TGAACAAAAG TCTCTCCAGC AGGGATTCCG TCTTTCCCCT TATAAATGGT	2100
TCCGTCTAAA TCAATTAAAT AGCCTTTATA TTTCATCTAT TTCTCCCTAA GCCTTTTSTA	2160
TTTCTTGCCA AGTAATGATT GCTTGGGCAT TGATAACCCC ATCACTTGTA ATTTTCATGCT	2220
TGCTTTCCAG TCCAGTCCGT TCAACAGCCG ATGTAATCAC CCCACCTGGT CGAACTTCCT	2280
TGACATACTT GAGGTTGATT TTCTTGGGAA TATAGTGGGT CAAAAAATCC GCTCCCATGA	2340
CCTCAAAAAT CCAGTCCAAG TATTTACTGT TATTGACATG ACCATTCTATA TCCAAGTCGT	2400
AAAAACGAAC ATGGTAATCC TTGCTGATCG GTTCTTCCAA GGACTCATAC TTCGGTCCAC	2460
GGATAAGTTT TTTATCAAAA TCAGACTGGT AAGGAGCCAC AATCTCAGGT TCAACAACAT	2520
GGACTTTTCG ACTGTCGCGG TCCATGAGAA CAAAGGTCGC CATCATGTGG ATGAGCTCCT	2580
GCTCCGCTTC ATTATAAATA GTAAAGCGAC GGTAGCAAAA AAGTCGATTG TAGCTCAAGG	2640
CTTCCGTTTC GATGGTAATT TCTTCCGCAA AACGAGGCAA ACGAACCACC TCAATATCAT	2700
ATTCTACGAT AATCCAGACC AGATTATATT CTTCCAAAAT GGCCTTATCA CTAACCTCCA	2760
GTTCATCGA CTGCATCCCT GAAACTTGCA GTGACAGCAA AATCACATCT GGAAGTTTGA	2820
TATGACCGTT CATATCAGCC ATATCAAAAAG GAATTTTCAT TTTCATTTGA TAAGTTAAGC	2880
CCATGATCCT ACTCCAAAAT AAATCGTTCT GCTACAGTAT CTCCCAAAA GAGACCTCTC	2940
TTTGTCATGC GAACGTGGTC ACCCTCAATC TGCATGAGGC CTGTGTGAAC CAAATCTCTG	3000
ACAATTTCTC CATAAAGTCC AGCAAAAGAC TGTCCAAATT TTTCCTCAAA TCGCGCCATG	3060
GAAACCCCGG ATTTCTTGCG GAGTCCCAAG AACATTTCTT CTTCATTG CTCTTTTGA	3120
CTCAGGTGAT CTTCTGTAAT ACAAGCATTG CCTTCCTCAA CCGCACTGAG ATAATGACGA	3180
ATGGGACCAT GATTTTATA GCGTACTCCA TTGACATAAC CAGATGCCCC TGCACCAATA	3240
CCATAGTATT CAGCATGTGC CCAGTACATG AGATTATGAC GACTTTCAAA ACCGGGTTTG	3300
GAGAAATTAG AAATCTCATA ATGCTCAAAA CCCGCTCGCT CCAGCTCTGC AATGATGTAC	3360
TCAAACATCT CCGCTTCTAG TTCTCTCTTA GGCAGAGGCA ATTTCCACG TCGCATCCGG	3420
TTCATAAAGA CCGTATGGTT TTCTAAAATC AACTATACA AACTCATGTG GGAATATCC	3480
AATCCAATGG CTTTAGCCAC ATTTCTCTT ACTTGCTCCA TGGTCTGACC AGGCAGAGCA	3540

TAAATCAAAT CAATGGAGAT ATTGTCAAAA CCAGCCAGTT TCAGGCGATC GATATTTTCA	3600
TAAATATCCT TCTCCAAATG ACTGCGCCCA ATCTTTTTC AATCTTATC ATCAAAGGTC	3660
TGGACACCTA GCGAAACACG ATTGACAGCC GAATTTTTC AAACAGCTAT CTTATCCGCA	3720
TCCAAATCGC CTGGATTGGC TTCAATGGTC AACTCTTCCA AGACAGACAA ATCCAAGTTT	3780
TTAGTCAAGC CATTCACTAA CACCTCCAGT TCGGAGCCG ACAGGGCTGT CGGTGTCCA	3840
CCACCGATAT AAAGGGTGA CAACTTTTC ATATCATAAG AACGAACTC TTCCAGCAGA	3900
TGCTCTAAAT AGCTGTCGAC TGGCTGATTT TTGATGAAGA CCTTTGAAA ATCACAATAA	3960
TAACAAATCT GGGTACAAA TGGGATGTGC ACATAGGCTG ACGTTGGTTT TTTCTGCATA	4020
GTAATTATTA TACCACAAAG ACTAGATTCC AGATAAAAT CACCATCCCC AGATACATAG	4080
TCCGTCCGGA GATGGTGATG GTTTATTCTT CTGTTATATC AATCACAATC TCTTCTGAGT	4140
CATCAAGAGC TTCGGCTTTT TCTTGCCATT GCTCCTTGAG ATTATTTAAT TGATTTTGTG	4200
ATGCTTCTGT CGCTTGAAA GCATAGGATT TAGTTTGAGC AAGTATACTG TCCACAGTGA	4260
TTTCACCTGA CTCAACCTGT TCTTTTGTTC TCAGAACAAA ATCTGTAGCC TGCTCCTTAA	4320
CTTCTGTGAG TTTTTCACAG ACTTGCTCCT TGGCATACTC CGGATCTTCT CTCAATCAT	4380
CTAGAAAATC TTGAGCCTGA CTGCAAACTT GTTTGCCCTT ATCACTTGT AAAACAAGG	4440
CAAGAGCTGC ACCTGAAACG GTTCCTAAAA GGATTGAGGA TAATTTACCC ATAAGGATTC	4500
TCCTTTTTC TTTTGTGAAA AATTACTTG CAAGACGAAG AGCTGACAGA CTTGCACCAG	4560
TCTTGAGTGT TTTTGAACCA GCTGATGAAG CTTCCTTGCT CAAGACACGC GCATGGTCAT	4620
TGAGGTCTGA AACAGATAGA GATAAATCTG CAACAGCACT GAAGAGTGGA TCAATCGTAG	4680
CCACCTTGAC ATTGATATCA TCTGCCAAGA CATTGACCTT AGCCAACAAC TCATTGGTGT	4740
GATGCAAGGT CACATCCACA TCTGAAGTCA AGGTTTAAAT CGTCTTTTCT GTTTCATCGA	4800
TGACACGACC AAGCTTTTGT ACAGTAATGA TCAGATAGAC CAAAAGACA ATCAAAGCTA	4860
GGGCAACAAG AATATATGCA ACTTCTAACA TTTAGTTTTC CTCCTCTGTA ATATAGTAAG	4920
GGGCTTCTT TCGATTTTGA TAAATAACGA TCATTATACC GAGACCGATA AGGACAACCTG	4980
ACAGCCATTG GGACACTCGA AAGCCGAAGA ACATGAGACT ATCTGTTTCG ATACCTTCGA	5040
TAACCATACG ACCGAAACCA TACCAATCA AGTAAAAGGC CGTGATATGA CCTCGTCTGA	5100
GACTCTTCCA TTTCCGTCTA AAAATCAGAA TCAAGGCAA GCCAAGCAGA TTCCATAGAG	5160
ACTCATAAAG GAAAGTCGGT TGACGGTAGC TCCCCTCAAT ATACATCTGG TCACGGATAA	5220
AGCCAGGTAG ATAATCCAGA TTATCCACTG TTGCACCATA AGCTTCTTGG TTAAAGAAAT	5280

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TACCCCAACG CCCCAAACTT TGAGCAATCA TAACGCTAGG CGCCGCAATA TCTAGAAAAT	5340
CCCAAGTATT GATGAGTTTA CGGTCAGCAA AGATATAGAG CACAAGAGCC CCAGTTATCA	5400
AACCACCGTA AATGGCCAAA CCACCATTCC AAATGGCAAA AATCTCTCCT AAATTCTGAC	5460
TATAGTAATC AAATCGGAAA ATAACATAGT AGAGACGAGC TCCTAAAATA GCCAAGGGAA	5520
AGGCTACTAA GATAAAATCT AAAATATCGT CTGGTATGAT CTTCTTTCTA GGTGCTTCTT	5580
TCATGGTCAA ATAAACCGCA AGAATCAAGC CTGTCACAAT ACATAAGGCA TACCAACGAA	5640
TGGCTAGGGG TCCTAGTTGA ATAGCAATTG GATCAAGCAT TTTGCACCTC ATTTGAGCG	5700
ATTAGACTTG TCAGTCGTTT GTCGAACAAA CGGGTCGCAT CAAAGCCCAT TTCCTTGGCA	5760
CGATAATTCA TGGCAGCTGC CTCAATCACA ACAGAGATAT TACGACCTGT TTAACTGGA	5820
ATACGAATAC GAGGAATGtA CGCCAGAAAC TTCAAGTTCC TCTGCATTAT TTCCAAGACG	5880
ATCAAAGGTC TTATGCGTAT CGTAAATTTT CAAATAGACA GCAAGCTGAA CCTGTGAAGA	5940
ATCCTTGACA GCACTCGCAC CGTAGAGACT CATAACATCG ATAATACCAA CCCCACGAAT	6000
TTCAATCAAG TGTTTCAAAA TTTCAGCTGG TTCACCCAG AGAGTAATCT CATCCTTGGC	6060
AAAGATATCG ACACGGTCAT CGGCTACCAA ACGGTGACCA CGTTTGACAA GCTCAAGACC	6120
TGTCTCGCTC TTACCAATTC CACTATCTCC CTGAATCAAG ACGCCCATCC CATAAATATC	6180
CATCAA	6186

(2) INFORMATION FOR SEQ ID NO: 132:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9541 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAAATCACA ACCCTTTTGT CAAAATTTT GAGATTATTT TCACAACTT GATTTTTCAA	60
AGTATACTCA ATAAAAATTA AAAAAATCCA CTACGTCAAG GCGAGGCTAA TGTGGTTTGA	120
AGAAATTTTC GAAGAGCGTG AATGAGTATC ATCTATAGTA AAATAAAAAA ACTGAACAAT	180
TTGGTTGGGG ACAGCCAAAC CAATTTCTCA CAATGTTTCA GAAACAAGGG TGTGCTATTC	240
CAATTTGAGC CTACTATAAC TGTCATAGAT TGCTGAAACA AAGTCTAGGT AAAAGTCTTC	300
ATAATAAAAA GACCTCCTAT CAAGTGTTCA AAAACTTTGA TAGGAGGTCT TGTTTGTGA	360
AAATATTTAT CAAATTTTCT ATACAAGTGA GCTGTTAGCC AGGTTCTTTC TATTCCTTCA	420
ATTTCAATGA ATGGATTTT TACTAATACT CATAACTGGG AATTGTCTG TGTAAAAATA	480

901

GCGAGATAGA TGGTATTTAT AAAACACTCA AGACAGCTAG ACTAATATCA TTTAAAACAT	540
TATCTTCTTT TGAGCGACTG TTGGTTACCA ACATAGCTAA ATTTCTTGCA TTTTCAAATT	600
GATAGGGTTC TGATTTAGCA TTCACAACCA CCAAGAGGTG TTCTTTGCCG TGAACCTCAT	660
AGATAAGGTA GCCGCTATGT TCAATCGCAG AATGCACAAA GACATGATGG TAAATTTTCA	720
CATAGCTAGA GTAAGAAAAG GCACCAGTTT TTGTCTTCAA TCGGATGACT TGACGGATAA	780
ACTCAATACT GTCTTGACGC TCATTAATCA AGTTCCAGTT CACTTGGTTC ACACGTGTCAG	840
GAGCATTATA GCTATTCATC GCACGCTCTC TATCATCATG GGTCAACTCA CCATTTTCAC	900
CAGTCGCAAC CAGTTTGGA CGACCAAATT CTTGACCGAT TTCCATAAAG GCCATCCCCT	960
GCATGAGCAG ATTCATGGCT GTGGCAGTTT CGACCTTGGC CATGATTGTC TCTGAACTTT	1020
GGTCTGGATG AAGGGTTGCC AATAAATCGT GAAGATTGTA ATTGTCATGG GCTTCTACAT	1080
AGTTAAGCAC CTGATTTGGA TGTGTATAGC TTCCTAATTC ACGACTTCCT AGGATTGCTT	1140
TAGCTAGAAT TGGCTCTGTC GCAGCACCAC TGACAAAACC TGACTTGATA GCACCATAAA	1200
CTTCTCCCC TTTGACAGCA TCGCGCTGAT TGTCATTAAA GAAACCAATA TTTGGCATCT	1260
GGTAGGCATT GTCCTTCTTG GCCTTATCAT AAGGGGCAAG ACCTGTTCCC ATATCCCATC	1320
CTTCTCCATA GAGGATAATG TTGGAGTCGA TTTTCATCAA GCTTTGACGA ATCATCTGCA	1380
TGGTCTTGAC ATCATGAATC CCCATCAAGT CAAAACGGAA GCCGTCAATA TTATATTCCT	1440
GCACCCAGTA TAGAAGAGAA TCAATCATAT ACTTGCGAAA CATTTCTGTG TCACTGGCTG	1500
TTTCATTTCC AACACCCGTT CCATTTCTGGA AGGTACCATC TGGATTGATA CGATAATAGT	1560
AATCAGGGAC TGTGTTTGG AATGGTGCAT CAACAACCTGA GAAGGTATGG TTATAGACTA	1620
CATCCATAAT GACTCCAATA CCCGCATCGT GATAAGCTTG AACCATCACC TTCAAATCAC	1680
GAATGACCTG AGCTGGATCA TCTGGATTAG TTGAAAACT AGTTTCTGGC GCGTTATAGT	1740
TTTGTGGATC ATAACCCAG TTGTAGGTTA CATTTCCATC CTCATCGTAT TCTTTATCAC	1800
GGTCTGCAAT TGGTTGCAAT TGAACATAAT TGTAGCCAG CTCTTGATG TAATCAAAAG	1860
CAGTTGACTG GCCGTATTGG TTAACGTTC CAGCCTGAGC AGCACCCAAG AAAGTTCCTC	1920
GAAGATGTTT ATCTACACCC GATGTAGGTG ATTTAGTCAA ATCAGGAATG TGCATTTTCA	1980
AGATAACTGC CTTACATGGA TTTTCCAAGC GCCAAGTAGC CTCCGAACCG TGCTTAACCT	2040
CGAAGTTTTC AACTTGCTTT TCTACATGGC TCAGAAATAGC TGAACGTTTG CCATCAGGGC	2100
TGGTCGCGAT TGTATAAGGA TCACGTGTCA GTGTTTGGTG ATGAGGGAAT TGGACTTGAT	2160
ACTGATAAGT CTTACCTACC AAATCTTCTT CAACATCCAA ACTCCAGACA CCGATTGTAT	2220

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TGTCCTTATG ATTATAAGAG TAGCTATTGC CTCTTTTTCAT CTCAAAAGTC TTCCAAACGG	2280
GTGCATCATT AGCAGCTGAT TCATAAACGA CAACTTGCAC TTCTGTCGCT GTAGGTGACC	2340
AGAGAGAAAA ATGAGCCTGA TTGTCCTCTA CACGGCAACC CAATTCTCCT TGGTAACCCC	2400
AATGATGATC AAAACTAGCA CTGTTAATGG CCTTATCAAA GGCAAAAGGA TTTTGATTTT	2460
TATAGAAAGG ACTGGCAATA GCAGGATTTT CAGAGTAATA AATCCTATCA TCGCCTTCCA	2520
AAATCCAGAC CTCTGTTAAT AGGGGATAGT GATTAAACG GATAGAATAT TCTTTACTAG	2580
TTTGACCTGT ATGAACCACA AAATCAAGC TTCTATAAC ATGTGAACTT GGGTGTTCAA	2640
AGCTAAATAA AGCTCCAAAA TAATCTTCTT TGTAGGTTAG CAAATCAATT CGTTGATCCT	2700
GACTTTTTAC AAAGGAGCAA GTGTCATAT CTCCATTCTT ACGATGGTAA TGAATGCGCA	2760
TAGGGTAGTT ATACATTTTT TATTTTTCCT TTTTACTTTG TTTCTATTTT ACTAATAAAT	2820
TTTTGTCAAT CTCGTCTCAA TTAACAGACA TAGTCATATT CTCTAAACTC TGTTTTTTAA	2880
CGATCCATTA CAAACTTTCT AGCCATGCCT CATCTCTGAC CTGGATACCA AGTTCTTGTC	2940
CTTTTTCAG TTTACTTCCA GCGTCTGCAC CTACCACGAC GAGGTGGTTC TTTTGTAGAA	3000
TACTACCTGT CACTTTGGCA CCCAGACTTT CGAGTTTACT TTTAGCTTCT GAGCGCTTGA	3060
GTCGTTCCAA TTTTCCTGTC AATACCACGG TCAAACCTGA CAAGGCCGCA TCCGCTACTA	3120
CCGTCTGTCC TTTATAGTCC AGATTGACCC CAGTTTCTTT CAATTCTCTG AGCAGAATTT	3180
CAGAGCCTTC TGTCGCAAAA TAAGTCTGAA GACTTTTGGC AATCAGCCA CCTAGACTTT	3240
CAATACTAGC CACTTCCTCT GAATCTGCCT GAGACAGATT TTCAATTGAA TGAAATATT	3300
GAAGTAAAAG CTGACTAACC TTGCTTCCGA CATGACGAAT TCCCAAACCA AATAAGAGCT	3360
TCTCGGCAGA ATTTTCTTTT GATGCTTGA TAGCCTGATA CAGTTTAGCA GCGGACTTTT	3420
CCTTAACTCC CTCTAAAAGG AGGAAATCCT CTCTTGCAA ACGATAAATA TCCGCCACAT	3480
CCTTGACTAA ATTAGCAGCA AAAAGCTTCT CAACAATAGA TGGACCAAGG CCTGTAATAT	3540
TCATAGCATC ACGAGAAGCA AAGTGAATCA AGCCTTCCAT GATTTGAGCA GGGCAACGCG	3600
GATTGATACA ACGTAGGGCC ACTTCATCTT CAAAGTGCAA CAAGTCAGAG TTACAACCTG	3660
GACAGTTTGT AGGGATATCT AGTTTTTCTT CAGAAACCCG TTTGGACTCT ACCACACGTA	3720
AAACGGCAGG GATGATGTCA CCAGCCTTAT ATACAATGAC CGTATCGTCT TTTCCGATAT	3780
CTTTTTCAGC AATATAATCT ACATTGTGCA GGGTCGCACG GCTAACAGTC GTACCGGCAA	3840
GTTGTACTGG TGTTAGATTA GCAGTTGGAG TTACAACACC GGTACGGCCA ACTGTCCAGT	3900
CAACTGATAA GAGTTGAGCT TCTTTTCTT CGGCAGGGAA CTGTAGGCT ACTGCCCACT	3960
TTGGAGCCTT AACTGTAAAA CCAAGTTCTT CTTGACTTGC TAGGTCGTTG ACCTTGATTA	4020

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CCACTCCATC AATATCGTAA GGCAGATTTT CCGTTCCTG TCCTACTTCT TGGATAAAAT	4080
TCCAGATTTT ATCTATGTTT TCAGCCAAGA TTCGCTTAGG ATTGACCACA AAACCTAGTT	4140
GTTCTAGGTA CTTCAAACCC TTTTCTTGGC TATCACGAGT TGAAGGGCTG GCTTCTTGAT	4200
AGAGAAACGT TGCAAGATTA CGCTTGGCAA CTACTGCTGT ATCCAACTGA CGCAGAGTTC	4260
CTGCTGCCGC ATTACGAGGA TTAGCAAATT CAGGCTCTCC ATTTTCTTGG CGCGCTTGGT	4320
TAACCTGGTC AAAGGAAGCG CGTGGCATGT AACATTCCCC ACGAACTGTG ATATCTAGTT	4380
CTTCTGGCAA AGTCAAAGGG ATGTCCTTAA CACGCTTGAG GTTTTCTGTG ATATTTTCAC	4440
CAATTGAACC ATCTCCACGT GTTACCCAG CAACCAAAAT CCCCTTTTCA TAAGTCAGCG	4500
AGATAGATAA GCCATCGATT TTCAGCTCAC AAATATAGGT CGGATGAGCC ACTTCCTTAC	4560
GAACACGCGC ATCAAAGCA TCTAGCTCCT CACATGAAA AGCATCCTGC AAATAATAA	4620
GAGGATACTG ATGACTGTAT TTTTCAAAC CATCTAAAAC CTTGCCACCA ACACGATGAG	4680
TCGGA CTGTC TGCTAGCACT TGCTCTGGAT AAGCAGTTTC TAACTCGACC AACTCACGGT	4740
AAAGCGGTC ATACTCACTG TCTGAAACCG AGGGATTATC GCTGGTATAG TACTCAGTCG	4800
CATAGCGATT GAGCAAAGCG ACTAACTCAT TCATTCTTTT ATTCATAAGA CCATTTTACC	4860
ATAAAACAAG CCTCTCTCAC AAACGAGAAG GGCGGAAAA ACACTTAGTT TGAAATTATT	4920
TTTGAACTC AAGCAACCTT ATATCAATTT TTCAAAATGA GTTCGAACAT ATCCGAGAGC	4980
TAAGAAATAT AAGGCTACAA CTCCAAGTCC AATAATCAAG AAAGAATAAA GATGGACACT	5040
TGGCAAGACT GTCATAAATC CTTTGTCAAT AGGCATAAAT AGAATAGCTA AGGTAAAAAT	5100
TGTACTCAGT ACTCTTCCAA GAAATTCGCT CTC AACCTTG GTTTGTACTT GAGTAAAAAA	5160
GTGAATATTA AAAATCGTCA TAAACAATTC ACAAACTAAA TTTCCAGAAA AGGAAAGAAA	5220
AGTTGGAAGT GGTAATCCCA TCATAAAAC TCCGACACCT GTCAAAGCCA GTAAATCAA	5280
AAGATTATAA ATATTAGCTT TAATTTTACT AGCTAGAAGA GCCCCAATGA TGGAACCAAT	5340
AGCCCCATA GTTAAATAC TTGCATAGGC TCCTTCTGAC CCGTAAAGCT GATTCGAAAA	5400
GGGAAGTAGA AATTCAAAG CTGCAAAAA GAAATTAACG CTGGAAGCTA CCAGCAAAAG	5460
GAAGAAAATT TCTTGCTGAT GCCAGATATA GTGTAACCCA TCCTTGATAT CTACAAAAAT	5520
ATCTCTCCCA GTAAAGCCT TTTTCTCTTG AACTTTTGCT TCCTCTTTTG GAAGGAAAGC	5580
CACTAGAACA AAAGCAATGA AAAAAGTCAG CGAGCTAGC AGTAGCGTCA TATGGAGACT	5640
TGCAAACTGT AAAACAAGGA AGGAAAGAAC AGGAGAGCTA ACACCTACAA CCTGCAAAAC	5700
CAGCTCTAAG CGAGAATTAT AGATCACAAT CTCATCTTTC TCCACCACTT CAGTTATGAT	5760

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AGCTTTATTG GCTGTGCGAG AAAAGGCAAA AGCAATAGCC TGCACAATGT TAGCAACAAT	5820
CAAAGCGCCA ATCATCCAGC TATCATTCCT TATGAAAGAA ATAGCCAGAC AAAGAATCCC	5880
ACAAACAAGA TCTGCCGTC TTAATCTCT ACGACGAGAA AAACGGTCTG AAATAACTCC	5940
GCCAAAGGGA TTGACGAGAA TAGATGTGAC GAGCTCAGAA ATCTGATACA TTCCTAAAC	6000
TGCTGTCTCT ATAGTCCCA TAGAAGCCAA CCAGACACTA TTCCATAAT CATAGAGCAT	6060
ATTTCCCAT TTTATGATAG CCCCACGGCT AATCAACTGC ACTGCATAGC GATTCATATT	6120
AAAGCTCCTC TCAATTTTG AACTATTGT ATCAAAACCG AAAGGAGCTT TTTATTTT	6180
CCCTTATTTG GGAAATTA CTTTGTGACAA ATTTTTCGTA GTGTTCTGA TAATAGGCTA	6240
CTTGCTCTGG AAGACCTAAC ACATCAAAA TATGCATGGC CTCTGCATC TGCTTACAGC	6300
CTTCTTTACA CTGTCTTTT TGATATAAGG CAAAACCTTT TAAATAATGG AAAACATTAC	6360
GCTCATAAAG CTTAATACCT TTGTCAATA TCTTCTCTGT ATAAGCCTCA AAATAGTTGG	6420
CATTATAAAA AGAAGATGC TCTAAACAAT GCTGGTAACA ATTGAGGGCC AAAATCAACA	6480
CTAATCTCT ATGGCGACTA ATCTCTTGGT AAAATTCCTC CCTCTCCATA ACTTCTCTAC	6540
CAATCCGAGT GACATAGTCT ACATCGTAGA AACTATAGAG GTTACCGAAA AGAATCAACT	6600
CATACATGGT CCATTCTTCT GTTTGAAGA GATAATCTGC TACCTTACCC AAATCATCCT	6660
GCTTCATATC ATAACCTGCA TCTCTTTGAC AAATCAGACC TTGTAGCAA ATCCAGTTCA	6720
GCTCAAAATA AAGGGGAGTC GTCGAATCT TAGACTTTTC AAGTTGTTCT CTTGAAGCT	6780
TTTGAAAACC TGCAATATCG TTTGAATAGT AAAGTGGAT AATCTGTGCC ATCATAGACA	6840
CATGTTCATG ATTATGAAA TTCCTTGCTT TATCCATGAA ATTTTCGATT GTTACATGAA	6900
TGTTATCCAA AATCTCAAAG AAACGGGAGA CTGCCAGGTC AGACTCCCCA AGCTCAAAGC	6960
GAGATAACTG AGAGGTAGAG CAGGATTCGC CTGCTGCTTC CTTTAAAGAA TAATTTCCAC	7020
TTGTTGCAAA TTCACGAAAT ACTTTTCCAA GATGTTCCAT CTTTACACCT GCTCTGATAA	7080
TTCTTCCAC TCAAGCATAG CTTCTTCTCT ACGATGGCTG ATTTTGTCCA GCTCAGCCTG	7140
TAATTCATG AGTTTGTGG CATCGTTGT TTCCAACATT TGTTCAAGAA TGGCTTGGCT	7200
TTGACTTTCT AGCTCTTCAA TTTAGCTTC TAGACTTTTC ATTTGTGCA TGAGTTTGGC	7260
AACTTCTTTT TGACTTTCTT TCTGGGCTG ATAGTCATTG ACTGGACTTG CTTCTTTGCT	7320
TTGATTGCTA GTTGAAGCTT CCTCAGTCTG ACTCATTTCT GCTGTTGCTT TCTTCTCAAC	7380
ATAGTAGTCG TAATCTCAA GGTAGAGAGT TGAACCATC TCAGACAATT CCAAAACATG	7440
AGTTGCCACA CGATTGATAA AGTAACGATC ATGACTGACA AACAGCAAGG TTCCATCAAA	7500
GTCAATCAAG GCATTTTCTA GCACTTCCTT ACTATCAATA TCCAAGTGGT TGCTCGGCTC	7560

905

ATCCAGAATC AAAAAGTTAT TGTTTTCCAT AGACAATTTA GCTAAAAGCA AACGAGCTTT	7620
TTCGCCACCA GATAGCATGC CGACTGATTT TTFAACATCA TCTCCTGAGA AAAGGAAGGC	7680
TCCAAGACGG TTGCGGATTT CAACTTCTGG TGTCAGTTTG AAATCATTCC AGAGTTCATC	7740
CAGCACCGTA TTACTTGGTG TCAGCTTGCT TTGGGTTTGG TCATAGTAAC CAACCTCAAC	7800
ATTAGCGCCA AAGCGCTTTT CTCCCTTGAT AAAAGGAATC TGGTCCACAA TAGACTTGAT	7860
AAAGGTTGAC TTGCCGATAC CATTTGGACC AACGATAGCG ACAGCATTCA TCTTACGAAG	7920
ATCTAGGTTA ATCGGTTGTG ACAAGACTTC CCCGTCATAG CCAACAGCTG CATTTTCAAC	7980
AGTCAAAACA ACATTGCCCG ACGTTTTTTC AGACTGGAAG GTCATGTTGG CTGATTTCTT	8040
GCCAGCTTCA GGCTTGTCCT AACGTTCCAT TTTTTCAGT TGTTTACGGC GAGATTGAGC	8100
ACGTTTAGTC GTTGAAGCAC GAACTAGATT GCGATTGACA AAGTCTTCCA GAGCAGCGAT	8160
TTCTTCTGT TGCTTTTCAT AGTTTTTTCG CTCAGTAACT AGCTTTTGCT CCTTCAATTC	8220
GACAAAACGA GAGTAATTCC CCACATAGCG ATCCAAGGAA TGCTTGGTCA AATCTAGCGT	8280
AATTGTCGCA ACCTTGTCCT AGAAATAACG GTCGTGGCTG ACGATAATGA GGGCACCGCT	8340
ATAGTTTACC AAGTAATTCT CTAGCCAGGC GATGGTTTCA ATATCCAAGT GGTTAGTTGG	8400
CTCGTCCAAG ACCAAGAGAT TGGGCTTTTC AAGGAGCATT TTGGCAAGTG CCAAACGAGT	8460
ATTTTGACCA CCAGAAAGCT CAGCAATTTT CATCTGCCAC ATAGACTCGT CAACTTGAA	8520
TCCATTCAAA ATCGCTCGAA TATCAGCTTC ATAGGTAAAG CCACCTGCTT GGCGAAAATT	8580
CTCAGATAAG CGGTCATAAT CTGACATCAG TTTATCCAAA TCCTCACCAG ACTTTTCACC	8640
CATCTCCAGC TCCATCTGAC GCAGTTGTCT CTCCGTCGGA CGCAAATCAT TAAAGACATG	8700
AAGCATTTCA TCGTAGATGG TATTTTCAGA CTCAAAACGG CTATCTTGGG CTAGGTAAGA	8760
CAGAGAAATA TCTTTTTTCT TATTGATTTC TCCGCTAGTT GGCTCCTCTT CTCCAATAA	8820
AATCTTCAAA AGAGTAGACT TACCTGCACC ATTTTTCCTA ACAAGAGCAA TCCGATCTCG	8880
TTTATCAACC TGCAGGTTGA TATTATCGAA AAGAACCTCT CCTGCAAAAG AACGTTCAAT	8940
TTTATTAGCT TGTAATAATA TCATACAAGT AGTATAGCAT GTTTCCTTAA GGCATTCAAG	9000
ATAATCGTAA GTCTTTTAGT ACAACTTTTA TAACATAAAA TAACTAAAT TATGTATATT	9060
TTATATTAGA TTACTTCACT ATCTTGTTGG ATTTTCTAAC CAGCTAATCT TGTTTCAAAT	9120
AGTTATCGCA CAAGTCTATT ATTTAATTCT TTTCATCATT TACGTACGTA TAGCAGATTG	9180
AAATAAGATG AGAACAATC GATTGGGAAA GTAAATTA TTTCTATAA TGTTTATAGCA	9240
ATTGTTTCGT ACTATTTTAG ATTCAGTCTA CTATATACAA TATTTTCGGA ACATTCAACT	9300

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TTTAACTCT ATTTATTACT AGATTTCATA ATTAAAAAAC CTACTGACCA AGCTAGAAAG	9360
CTTGATACAA TAGGCTTTTT AAAGACTGAT TATTTAACAG CGTCTTTAAG AGCTTTACCA	9420
GCTTTGAATG CTGGTACTTT AGAAGCTGCA ATTGTCAATT CTTTACCAGT TTGTGGGTTG	9480
CGACCTTTAC GTTCTGCGCG CTCACGAACT TCAAAGTTAC CAAAACCGAT CAATTGAACT	9540
T	9541

(2) INFORMATION FOR SEQ ID NO: 133:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3502 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC TATCATGCTT TCTAAGGTCT ACTCAAGAAA ATCATTMTCA AGTTTTCACA	60
CCTTTCTCAA AAAAGTTAAA AAATTTTCTC AAAAACGCTT GACTCTGACC TAAGGCGAAG	120
GGTTATACTA TCATTGTAAG GAGGAAATCA TGTACCATAT AAAAGAAGCT GCGCAGCTTT	180
CAGGTGTCTC TGTCAAGACC CTGCATCACT ATGACAAGAT AGGACTCTTG GTCCCTTAA	240
AGTCGGAATA CGGCTATCGA ACCTACAGTC AAGAGGATTT GGAACGCTT CAGGTCATTC	300
TTTACTACAA ATATCTAGGC TTTTCTTTAG AGAAAATAGC AGAGCTGTTA AAGGAAGAAA	360
GGACAGATTT ATTGCCCCAT TTGACTAGGC AGTTGGACTA TCTAACTCGC GAAAGGCAAC	420
ATCTGGATAC CTTGATTTCC ACCTTGCAAA AACTATTCA AGAACAAAA GGAGAAAGAA	480
AAATGACCAT TGAGGAAAA TTCACGGGAT TTAGCTATCA AGACAATCAA AAATACCACC	540
AAGAAGCGGT AGAGAAATAT GGTCAGAAG TCATGGGACA AGCGCTCGAA CGCCAAAAAG	600
GTCACGAAGA CGAGGCTACG GCCGCCTTTA ACCAAGTCTT TCAAACCTTG GCACAAAATC	660
TTCAAGTTGG TTTACCTGCA ACAGCAACCG AAAACCAGGA GCAAGCAGCC AAGCTCTTGC	720
AAGCCATTCG CACTTATGGA TTTGACTGCT CTATTGAGGT ATTCCGTCAT ATCGGTAAAG	780
GTTACGTCTA CAACCCAGAG TTTAAGGAAA ACATTGACAA GTTTGGTTCT GAAACAGCCC	840
AGTACACGTC AGATGCCATT GCGGTTTACG TTCAGACAAA TGCAGAATAA ATAGGCTAGG	900
AATTTCTTAG CCTATTTTTT ACTTCAAATC ATAAAGCCAG TCGTCACCGT TTTTGTAGTA	960
AAAGAATTCA CTGAGATCTT CTTCTAGAAA CACACGAAGC ATATCAGACA TATCATCGGT	1020
TGCAAGTTTT AGATGAGAAA GATTTTCAAA GTCCTCCAC CAAACTTTCC CTTCTGCTGA	1080
AGACTGGAGT TCACCAGTAA AGTGTTCTGT CTTGTAAAAA AGGACGACAT AACGATAATC	1140

CTGTGCGTCA TACCAGTTT TGATACCACA GAGTTGGGGT TTGGAAATGA TCAGACCAGT	1200
TTCTTCTTTC ACTTCACGAA TGACAGCATC GACAAAGGAT TCGCCACGTT CAACATGACC	1260
ACCAGGAAAA GTAATGCCAG ACCAGTCGGG ATTAACTCGG TCTTGGACCA GGACCTTATC	1320
TCCGTTTTTA ATCATACACA TGTTAACAAA TTCGACTGCC TCTCTTCTGT TCAATCTTCA	1380
CAACCTTTAA TCTTTAATCA TAATGCAGAC TTCCCGCCAC CCAGCCGGTA CAGAGGGCAG	1440
AAGTGATGTT AAAGCCACCC GTGTGGGCAT TGATATCCAT AACTTCGCCT GCAAAGTGA	1500
GGCCAGGTAC CAGCTTACTT TCAAGGGTTT TAGGATTGAT TTCCTTGAGA CTGACTCCAC	1560
CCTTGGTAAC AAAGGACTTT GCAAGGGACA TTTTCCAGT TACAGGAATT TTAAGTTCTT	1620
TAATGGACTG GACAAGTTGT TCTCGTTCCT TTTCACTCAG TTGTTTGACT TTTTCAGGAT	1680
ATCCTTGATC AAAAAATTCG GCCAAGCGTT CTGGTAACAA GGTTTTTAAA GCGTTTTTCA	1740
AGGATTTTTT CCGATTTTCT TCTAGAAATG TAACCAAGTC CTTCTCAGAA AGTTGAGGCA	1800
AAACATCGAG TGAGAGAACC TCCCCACCTT TGACAAAGCT AGACATGCGT AGGGCAGCAG	1860
GACCTGACAA ACCAAAGTGG GTAAAGAGTA AATCATGAGT GATGACATGC TTACCATAAC	1920
TTAGGGTCAC ATCGTCCAGA GAAATACCTT GTAAGGCTTT ATGTGGAAAA TCTGTTAATA	1980
AAGGACTTTC AGCAGCCTCA AGATCGGTGA TGGTATGCTT AAAATGGCGA GCAATCTCGT	2040
GACCAAAACC AGTCGAACCA GTCGAAGGAT AAGACTTACC ACCTGTTGTG ACAATGAGTT	2100
TCTCACAAGT GAAGGTTTGA TCCGCTGACT TAAGGACAAA CTGGTCATCT ACTTTTTTAA	2160
CAGAAACGAT TTCTATTGA GTAGCAACTT GACCACCTAG TTCGGTGATT TTCTTTTCCA	2220
AAGCTTCGAT AATAGTCCGA GACTTGTCAC TGGCTGGAAA GACGCGTCCG TGGTCTTCGA	2280
CCTTAAGTTT AACACCATTT TCTGTAAAAA AGTTGATGAT GTCATGATTA TCGAACTGGG	2340
AGAAAACACT GTAAAGAAAG CGTCCGTTTC CAGGAATTCC AGCTAGCAGG TTGTCTAAGC	2400
TACCATTGTT GGTCAATTG CAACGTCCCC CACCAGTCCC AGCTAATTTT TTTCCAAGTT	2460
TCCGATTTTT TTCGATGAGG AGGGTTTTCT GTCCATAAAA GCTACTGGAA ATCGTAGCCA	2520
TCATACCAGC AGGTCCCCCA CCGATGACAA TAGTATCAAA ATGTTTCATA GCTCTATTGT	2580
ACCACAAAAA AACAAGAGAT GATGGTCACC TCTGTCAAG AATGCAATTA ATCAATTTC	2640
TAGCCCATCA GCAAACCGCC CTCTTCGCA TAGAACTGC AGAGACCAGA GGTGGTAGA	2700
ATTTTAATAT CCGCTTGTTG GAAGGTTTCA CGGATTGCTT CTGAGAGCTG TTGACAACAT	2760
TTTTCGTTAT TGCCTTGGGC CATGACAATA CGGCCACCAG CATATCCAGC TTTTACTAAC	2820
TCATCATAGG CAGCTTGAAC TGATTCTTTT GATCCCTTG CTTTTGTAG CAATTCGAGA	2880

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GTCCAGTTT CACTAGCTTT TCCGACCATA CGAATGTTGA GAAGGCCAAC GACCGTACCG	2940
ATAAGCTTGC TCAAACGGCC GTTCTTCACC AAGTTATCGA CTTTGGCTAG GACAAAGAGC	3000
AACTTAGTTT TTTCTTGATA GCGGTGATA GCTTCAACCA CTTCTTCAAA AGACAAGCCC	3060
TGGTCAATCA AGTCATTCAA TTTTCTACG AGTAGGTCAA CTTCAACCACC AGCAGATAAA	3120
CTATCAATCA CATGAATCTT AGTGTCAAGG TGGTCTTCCA GATAAATATT CTTTGCTAGT	3180
TGAGCACTAT TGTGACTGCC AGAAAGGGTA CCTGTGATGG TTAGTAGGAA AATGTTTTTG	3240
GCACCTTCAA ATGCTCGCAA ATAGTCATCT GGGCTTGGAC AAGCCGATTT TGAAGCTTCT	3300
GCA GTTGCAT ACATGTTTC CATCATTTGG TCAATATCGA GACTGGCGTC ATCAACAAAG	3360
ACCTGATCAG CTACTTGAAT GGTAAAGGGG ACACTTACAA AGGTTGTGTT AATAGCTGGT	3420
GTTGGCAGTT GACGATAATC ACAACCAGAG TCAGCAATAA TCTTCCAAGT CATAGAAATT	3480
CTCCATCTTT GTCAGGAACG AT	3502

(2) INFORMATION FOR SEQ ID NO: 134:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12665 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT TTTTAAAGCG TTCGATAGAG AATGAGAAAC GAATCCTTAG CAATGGCGGG	60
AAAGAATTTG GAGTTGAGAA TACAAAACGA TTAACATATGG CTCATATTGT TTTTATCTC	120
TCTTGCTTGG TTGAGGCAAT GGTGCACAAG ACAATTTTGG ATGGCATGGG CATGGTTGGT	180
TTAGTCTTGC TTATTTTTC TATGCTGATG TTGATGTTGG TGATTCACCT GTTGGGAGAT	240
ATTTGGACAG TGAAGCTTAT GCTTGTCAAT AATCACAAAT ATGTAGATCA TATCTTGTTC	300
AGGACAGTAA AACACCCTAA TTACTTTTTC AATATTCCTC CTGAGTTGAT TGGCTTGACC	360
TTGTTGAGTC ATGCTTATGT GACTTTTGTT TTAGTTTTTC CAGTTTATGC AGTTATTTTG	420
TATCGACGAA TAGCTGAAGA GGAAAAGCTA TTACATGAAG TTATAATCCC AAATGGAAGC	480
ATAAAGAGAT AAATACAAA TTCGATTAT ATACAGTTCA TATTGAAGTG ATATAGTAAG	540
GTAAAGAAA AAATATAGAA GGAATAAAC ATGTTTGCAT CAAAAGCGA AAGAAAAGTA	600
CATTATTCAA TTCGTAAATT TAGTGTGGA GTAGCTAGTG TAGTTGTTGC CAGTCTTGT	660
ATGGGAAGTG TGGTTCATGC GACAGAGAAC GAGGAGCTA CCCAAGTACC CACTTCTTCT	720
AATAGGGCAA ATGAAAGTCA GGCAGAACAA GGAGAACAAC CTAAAAACT CGATTCAGAA	780

CGAGATAAGG CAAGGAAAGA GGTCGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAGGAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTTCAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTTAC	1200
AAAACGCTTG AACTTGAAAT TGCTGAGTCC GATGTGGAAG TTAAGGAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAAGCTAA CGAACCTCGA GACGAGCAAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAG AGCAAGGTAA ACCAAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAGCG GAGCTTGAAC TAGTAAAAGA GGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAAGCGG AAGTTGAGAG TAAAAAGCT	1800
GAGGCTACAA GGTTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
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CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTTCTA CAATACTGAT	2160
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GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTATCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTACCT AAACGCTAAT	2340
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GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTATCT TGAAGCATCA	2520

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GGTGCTATGA AAGCAAGCCA ATGGTTCAAA GTATCAGATA AATGGTACTA TGTCATGGC	2580
TCAGGTGCCC TTGCAGTCAA CACAACGTGA GATGGCTATG GAGTCAATGC CAATGGTGAA	2640
TGGGTAAACT AAACCTAATA TAACTAGTTA ATACTGACTT CCTGTAAGAA CTCTTTAAAG	2700
TATTCCCTAC AAATACCATA TCCTTTCAGT AGATAATATA CCCTGTAGG AAGTTTAGAT	2760
TAAAAAATAA CTCTGTAATC TCTAGCCGGA TTTATAGCGC TAGAGACTAC GGAGTTTTTT	2820
TGATGAGGAA AGAATGGCGG CATTCAGAG GCTCTTTAAG AGAGTTACGG GTTTTAACT	2880
ATTAAGCCTT CTCCAATTGC AAGAGGGTTT CAATCTCTGC CAGGGTGCTG GCTTGCGAAA	2940
TGGCTCCACG GAGTTTGGA GCGCCAGATG TTCCACGGAG ATAGTGAGGA GCGAGACCGC	3000
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ATGCGTTTTT CAAAGCGAGC AATCTCTTCT TTCTTGGCTC CTGGCAAGAC TTGAACTAGG	4200
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912

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GCGGCCTTCC TAGCAGGTTT GTCAGTAGG TACTGGAAAG ACTTGGACGA GTTGAAACTC	7860

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CACGTGAATT GTCAATTAAA AAAATGCAGG AACGTACCCT GGACCTCTTG ATTATCGGTG	8100
GAGGAATCAC AGGAGCTGGT GTAGCCTTGC AGGCGGCAGC TAGCGGTCTT GAGACTGGTT	8160
TGATTGAAAT GCAAGACTTT GCAGAAGGAA CATCTAGTCG TTCAACAAAA TTGGTTCACG	8220
GAGGACTTCG TTACCTCAAA CAATTGACG TAGAAGTGGT CTCAGATACG GTTCTGAAAC	8280
GTGCAGTGGT TCAACAAATC GCTCCACACA TTCCAAAATC AGATCCAATG CTCTTACCAG	8340
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CACGTGAAGA TGTTGAGTCT GCTGTCAGCA AGCTTGAAG TAGCACATCT GAGAAACATT	9240
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CCAAAACGT GAAGAAATCG AGCAAAGGAG AGCTGAGCTT GAGGGTAAAA AACAAGAGCT	11100
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GCTTTGTGAA TCCAAGTAAG ACTGATAAGC TTGTATACCA AAATATGCTC CACCAATTAT	11400

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TGCACCCCAT GGACCCCCCA ATAAAGCACC TATCCTACCA ATCATATAAC TGATTCCAGC	11460
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GGCTTCAAC TCTAAAGTCC AAAAAGGTAG TCGTAACCTA TATGTGTAAA TCACGAGAGT	12420
AATTGAATTC GGAATAAGGT TTGTGTGAAA AAGATAAATC TTTCTAGAGT CTAAGACTC	12480
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AGGGG	12665

(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5305 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTTCACTCT CAAGAAAAGC AAGAAGTATT

60

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CATTTTAGTT TCATTAGTA TTATTTTGCA TACCTAAAAAT ACAGTAAAAA ATCAGTCATC	120
TTGGTATGCT CTGCTTTCA CTATTCAACA CGTTTTTGAC TTATACTAGG CTCATTTCCA	180
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AAATTCGTTT AAAAGATCTT ACTAAAGCTA ATACTAAATA AAAATAAAAG AGTAAACTAG	300
GAAGTTTATT TCAACAACCC TAAATACTG ATTTTCGGCT GAAGATAATA CTGGAGTGCA	360
AATTAATGGG GTTATAATAA ATAGCTGATA GCTTGTGTTG GTTTTGATT TTTTAAGAGT	420
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GGCGAATGGG CTCAGAAAAA ATTTGAACAA GATATGGATG AATTGGAGAG TGGAGAATAG	1140
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TCGTATTCGT TCGGTTATCG AAGATGAACC CTTGATGGAG TTTGGGACAC GTCGGGCTCA	1740
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CAGCAACGTG CGTGCGGGTA AGCTCTTTGA CATTCTGTT TTGGGAACCC ATGCCCATGC	1860

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TCAGGTGGCG CGTGAGCTGG GTGATCAGAT TAACTTTATG GGTGTGCGGA TTGACTCTGG	2040
GGATATTGCC TACATTTCTA AGAAAGTCCG TCAGCAACTG GATGAGGCTG GATTTACAGA	2100
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TACGATTAA GCTGTCTAATA ATGCTGAAAA AGTTTCTACG CCAGGTAAGA AGCAGGTGTG	2340
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TGATGTATGG CAAGATAAGA TGGACTTGAT TGATAAGATG CGCAAGGAAG CCCTTGGTGA	2700
AGGAGAAGAA GAATGAGTTT GCAAGAAACG ATTATCCAAG AGCTGGGTGT CAAACCAGTG	2760
ATTGATGCCC AGGAAGAAAT CCGTCGTTCT ATTGATTCTT TAAAAAGATA TCTGAAAAAA	2820
CATCCCTTCC TAAAAACCTT TGTACTAGGG ATTTCTGGGG GACAAGACTC AACCTTGGCA	2880
GGACGTTTGG CGCAATTAGC TATGGAAGAA CTGCGAGCTG AAACGGGAGA CGATAGCTAC	2940
AAATTTATCG CTGTCCGCCT GCCATACGGA GTGCAAGCTG ATGAAGCAGA TGCTCAAAAA	3000
GCCCTAGCCT TCATCCAGCC AGATGTCAGC TTGGTTGTGA ATATCAAGGA ATCAGCTGAT	3060
GCCATGACAG CTGCAGTTGA AGCGACAGGT AGTCCTGTTT CAGACTTCAA CAAGGGGAAT	3120
ATCAAGGCAC GTTGCCGTAT GATTGCTCAG TATGCCCTTG CTGGTTCCCA TAGCGGAGCG	3180
GTCATTGGAA CAGACCACGC CGCGGAAAAT ATCACAGGTT TCTTTACCAA GTTTGGTGAC	3240
GGCGGTGCGG ATATTCTCCC TCTTTACCGC CTCAATAAAC GCCAAGGAAA ACAGCTCTTG	3300
CAGAACTTG GCGCAGAGCC AGCCCTTTAT GAAAAATCC CAACGGCAGA CCTAGAAGAA	3360
GATAAACCG GCCTAGCTGA CGAAGTCGCA CTTGGAGTCA CCTACGCAGA GATTGACGAC	3420
TACCTAGAAG GCAAAACAAT CAGCCAGAA GCTCAAGCGA CCATTGAAAA CTGGTGGCAC	3480
AAAGGCCAAC ACAAACGCCA CTTACCCATC ACCGTATTG ATGACTTTTG GGAGTAAAAA	3540
GGTCCGGGGG ACCTTTTTAG CTTCTTGCCC TGAAATTAAA AAGCAAGAAA AACCTCCACT	3600

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GGAGGTTTTTC AGCCTCTCAT CTTGAAATAA GAAAGTGAGA GAAGGTCTGG GGGATCTTGA	3660
ACCCCGAGTT TAGAAATAAG AAAATGAGGC AGATTTCAGTA ACTCGAAGAG TTCGATTTCA	3720
TCGTCTTACC CCTGCAACGA TGAAGGTT TGAAAAAGCT TGCTAGAGCG CATTTCAAAC	3780
CAGGCAGCAA CTGCGTCAAG AAATTAGAAG ACAAACCTCGT TTTCTAGCTG TTAGTGAGTT	3840
GAGCCTTTTT ACTACGAGTA TAGAAATAAG GAAGTGAGGT AGCATCATGA AATCTATCGG	3900
TACGCAAATA TTACAGACAG AACGTTTGAT TTAAAGAAGA TTTGTGGAGA GTGATGCAGA	3960
AGCCATGTTT CAAAATTGGG CTTTCATCCGC TGAGAATCTG ACCTATGTTA CCTGGGATCC	4020
CCATCCTGAT GTCGAAATCA CTCGAAATC GATTTGCAAT TGGGTTGCTT CCTATACTAA	4080
TCTCAACTAT TATAAATGGG CCATTGTGCT AAAAGAAAAC CCAGAGCAAG TAATAGGAGA	4140
TATCAGCATT GTTAAGATAG ACGAGGCTGA TTAAAGCTGT GAAATGGCT ATGTGTTAGG	4200
CAAGGCTTAC TGGGAAATG GTATGATGAC AGAGACTTTG AAAGCTATCT TGGACTTTTG	4260
TTTTACTCAA GCAGGTTTTT AAAAGGTCAG AGCACGTTAT GCCAGTCTCA ACCCAGCTTC	4320
AGGTCGTGTC ATGGAAGG CTGGAATGTC CTATCTACAA ACCATTGTTA ATGGTGTAGA	4380
GAGAAAGGC TATCTTCCG ATCTTATTTA TTATGGTATA AGTAGGGAAG AATGTTGAAT	4440
TCTATTTCT GTTCTATCG AAGTCAACTA TTTATTGTAA ATATAATAAT TAGCATTCCA	4500
AGTTTATTTG AAACCTTAAA ATAGCATATT GATTAGTACA AGACAGATGT TCTAGTTCCT	4560
TCTTTAATCT GGTTTAGTGT TAGTTAAAA ATCGCTTTAA GCTTGTAAC TAAAGGGAGC	4620
TAATCGACTA GATTCCTCAG CCGAACAGG GGTAAATGTAC TTTTATAGT GTAATCCTAG	4680
CTGTTGTAA ATTTAAATA GAATCCTCTA TCGAGTTAGG GAATTAAAT CAACCAATTT	4740
TATTCATGTT TTTCTATCA AATTATCTAA TATTAAATA GTCTCATTCT GATGAGAAAA	4800
CTATTCCTCA ATCATTCTA CCTCTCTCA CTAGATGTAA CTTACAAAAC CCCTGACCTC	4860
ATGAGCCACT TTCTTCTCC TCATGAGGTC AGTTTACTT TCTGCTGTT CAGTATCGTT	4920
TTTCTCGCT AGATTTCTC AAAAGGGCAG ACTCCTCCCT TGGTGCCTCA CACGATTTT	4980
TCATCTCGAC TGTCTTTAA TGCATCATT ACGACGCTT TCTTCTAGGT GGTTCATAAG	5040
GAACAGGAAG ATTCAGGTTG ACTTTCTAA TCCTAGAATA AAGTGCTGAA AACAAATTCG	5100
AATAGGCATA GAGACTAGAC AATTGAGGA GCTGCTTGC TCCTGTTTGA ACACATTTTC	5160
CCACCACGTG AAGAAAAAGA TGGCGGAAGC GTTTGATTGT TAAAGTTTG AAGTCACCTC	5220
CAGCTAGATG TTTGAGAAAA AGATAGAGAT TGTAGGCGAT ACAGCTCATC ATCATACGAA	5280
CTTCGTTTTT GATTAAAGGT GAACT	5305

(2) INFORMATION FOR SEQ ID NO: 136:

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- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3964 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAATCG AGTCTACTGA TTTTATTTT TGTA AAAAAG TTCAGTAGAT	120
GCAATGGAT TCGGAAGCGA TGTACAGTA GATTGAACT AGAATAGTAC ACCTCTGTTT	180
CTAAACATT GTTAGAATC GATTGACTG TCCTGATCGA TTTGTCCTGT TATTATTTTA	240
TTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATCCAGG AAATCAATTG GTAGCACAAG ATCCAAAAGC ACAAGATAGC	360
ACTAAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATAACTC ATTTAACAGA TGAAGAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TGCGAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC AGGTGGAGAT	660
AAGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCCTT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGAA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAAATGCGA AACTATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTT AGCATCAAGT	1140
GCAGCACTTG CTAGTCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

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ATTGAAGAGA GGAGGGGAAA CCGAAAAATT AGGTGCCCCCT CCTCTTTTCT GGTATAATAG	1500
AAGATAGAAA ACGAGGTTAG AAGAGATGAT TTTTGATACA CATACACACT TGAATGTAGA	1560
AGAATTTGCA GGTCTGAGG CAGAAGAAAT TGCCTTGGCT GCTGAGATGG GTGTGACACA	1620
GATGAATATT GTTGGTTTGT ATAAACCGAC GATTGAGCAT GCCTTGGAGT TGGTAGATGA	1680
GTATGAGCAG CTCTATGCCA CTATTGGTTG GCATCCTACA GAAGCTGGTA CTTATACAGA	1740
GGAAGTTGAG GCTTACTTGT TGGATAAGTT AAAACATTCC AAGGTTGTGG CTTTAGGTGA	1800
AATTGGCTTA GATTACCATT GGATGACAGC GCCCAAAGAG GTGCAGGAGC AGGTTTTTCG	1860
CCGTCAGATT CAGCTATCTA AGGACTTGGT TTTGCCTTTT GTTGTCCATA CCCGTGATGC	1920
GCTGGAAGAT ACCTATGAGA TTATCAAGAG TGAGGGCGTT GGTCTCGTG GTGTTATCAT	1980
GCATTCAATT TCAGGGACGC TTGAGTGGGC AGAGAAGTTT GTGGATCTTG GTATGACCAT	2040
TTCTTCTCA GGAGTGGTGA CTTTAAAGAA GGCAACTGAC CTCCAAGAAG CAGCTAAAGA	2100
GTTACCTTGT GACAAGATGT TGGTGAAAC AGATGCGCCT TACTTAGCAC CTGTACCCAA	2160
GCGTGGTCTG GAAAAATAAA CAGCCTATAC TCGCTATGTG GTCGACTTTA TCGCTGACTT	2220
GCGTGGTATG ACGACAGAAG AGCTGGCGGT AGCAACGACT GCAAATGCAG AACGAATTTT	2280
TGGACTGGAC AGCAAGTAAT GAAAGAGAAA ATTTCTCAAG TTATCGTGGT TGAAGGGCGT	2340
GATGATACGG TCAATCTCAA ACGTTATTTC GATGTGGAGA CCTATGAGAC TCGAGGTTCT	2400
GCCATCAATG CTCAGGATAT AGAGCGGATT CAGCGCCTGC ACCAACGTCA TGGAGTCATT	2460
GTCTTTACAG ACCCAGATTT TAATGGGGAA CGGATTCGGC GCATGATCAT GATGGTCATT	2520
CCAACAGTTC AGCATGCCTT TCTCAAGCGA GATGAAGCTG TTCCCAAGTC CAAGACCAAG	2580
GGGCGTTCTC TGGGAATTGA GCATGCCAGC TATGAAGACC TGAAAACGGC TCTAGCTCAA	2640
GTGACAGAAC AATTTGAACA TGAGAGTCAG TTTGACATTA GTCGTAGCGA TTTGATTGCG	2700
CTTGGTTTTT TAGCAGGGGC AGACAGCCGT AAGCGTAGAG AATATCTCGG AGAGACTCTC	2760
CGAATCGGCT ATTCCAACGG CAAGCAACTC CTCAAACGCC TAGAGTTGTT TGGGGTTACT	2820
TTGGCAGAAG TGAAGAAGC TATGAAATCT TATGAGTAGG AAAGATGTAG CCGTTACAAT	2880
TTTTTAAGTT TCACAGTATT TTTCGAAGCA GGTAGAAGAG GAGGCGTCTG ATGTTAATTG	2940
GTCAAAAAAT TAAAGAGATT CGGATAGAAA AAGGAATTAG TCGTCCAGAT TTTTGTGGAG	3000
ATGAGCAAGA ACTGACAGTT CGTCAACTGT CGCGAATTGA AAGTGGAGCT TCGCAACCGA	3060
GTTTGCCCAA GTTAGACTAT ATTGCTCGCC GGCTAGGAGT TCCAGTTTAT AGCCTTATGC	3120
CGGATTTTTT AGCTCTTCCT TCTGCTTATT TAGAATTGAA ATACCAGATT TTACGTGAAC	3180
CAATCTATGG TAAAGAAGAG GAGTACGATA AGAAGGAAGC GTGTTTGGAA GAGATTTATA	3240

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AAACATACTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAACT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAATT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGAA CAGAAGAAGG TAACTCAAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTTCAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTTA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TCGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTTGATTT TATGTTTTTG TGGAAAGCAAG CATTAGAGA AGAAAGAGAT TTTAGTTTAG	3720
CTGAATCATT TTATCAGTCT TCTAAACAT TTGCGCAGCT AATTGGAGAT GAATTCTAG	3780
TAAAGAAATT GACAGAGGAA TGGCAAGAGG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCTT GTCCTCGTAT CAAAACAGTT CTAAAGTTCG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGTT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATTCAAACC AAAAGCTTGT CAGGTATTGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTC ATCTTATATA GGTGATTTAG TTAGITTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTTAATTGT TGGTTTGTTT CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATTCTTTT ACATGCGATC AATATTTTTC	300
TATCGTTACT ATCAGGATAT GTTCATGGAG CACGTCTGAT ATTTGTTGAA TTTTGTGTA	360
AGTTTTATGA GGGTGGAGGA AAACCATTTT AACCTTTGAA GGCTTCTGAG AAATATATTA	420
AGGTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTAGCA ACTTATTTT	480
CAACCTATGG AGGAGCTTTC TTCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGTAAGG CTGGGCAATC TGCCGCAGCT TTAATGAAAG	600

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AACAGCCTGA AAAGTTTGCC TCAGCTTTGA TATTGCAATT ATTGCCCGGA ACACAAGGAT	660
TATATGGTTT TGTTATTGGA ATTTTAATTT GGTGCAATT AACTCCAGAA CTTCTTTAG	720
AAAAAGGCGT TGCTTATTTT TTTGTAGCTC TTCCAATTGC TATTGTAGGA TACTTTTCAG	780
CTAAGCATCA AGGAAATGTA GCAGTAGCGG GAATGCAAAT CTTGGCTAAA AGACCAAAAG	840
AATTCATGAA GGGAGCAATT TTAGCTGCCA TGGTAGAAAC CTATGCAATT CTTGCTTTTG	900
TCGTATCATT CATTTTGACC CTTCGTGTAT AAGAAATAAA TTTGCAATTC AAAGGAGGTG	960
TCTAAATGAG CAATTTAGAA AACTTACGAG AGTCTGTTAT TGAACAAGCT CATGAAAAAG	1020
GGCGTATGAA ATTATTGGAT TCCAAAAAGA AGATTGATGA TGAATTTGAA ATGCAAAAGT	1080
CGCTCATTAT AAAGAAAAAA GAAGCTGAAC ATGAACGAAA GTTAAAAGAA TTGCAACAGA	1140
AATATCAAAT AATTTTTCAA CAATTAAAA ATAAGGAACG CCAATCAACG TTAGTATCAA	1200
AACAGAAAAT ATTAAGAAAG CTTTTCAT CTGCTTTACT AGAAATGGAA TCTTGGAGTG	1260
CAGATAAAGA AATGGAGTTC ATCTATCGAA TTCTGGAACG ATATTCACAA CAAGAGGTCA	1320
TAGTAACCTT TGGGGAACGG ACTTTAGCTA AATTCAATTT GGAACAATTA GAGAAATTGA	1380
AATTCCTCTT TCCAAATTAT TTATTAGTG AACAACTAT CTCAAATGAA TCAGGCTTAC	1440
TTATTTCAT AGGTAAAATT GATGATAACT ATTTGTATAA AACATTAATT GGATCGATTT	1500
CTAAGGAAGA AAGTTCAAGT ATCGCAAATC AAATTTTAT CAATTAAGGA TGAATTTGGT	1560
TAATCCTTCT TAGAAATTG GAGTATCCA ATAAATTAG AAAGTATTT TATGGATACT	1620
AATCTTTTTT CAAAAATAA TACGACGATT TCGGTAAAG AAAACGATTT TATTACAGAA	1680
GAAAAATTC AAAAAATTAT ACAATCCAAA GATACGGAGA CATTGGCATT TATCTTAGAA	1740
TCAACTCCCT ATCATTTATC GATTGACATC TTAGAAGATC CTAGTCAGAC AGAGATTTCTG	1800
CTAATGACAA AATTAGTCAA TGATTATAGA TGGGCCTATG CTGAAAGTCC GTCTGATATA	1860
ATTGTGACTT TATTTGCTTT ACGATATGTT TATCATAATA TCAAAGTTTT ATTAAATCT	1920
AAGGCGGCAA TTAAGAAAGA TTTTCTAAA TTATTAATTC CAATAGGGAT TTTTGATATA	1980
GAAAGTTTAA AACATTTAGT TTCTTCCTTA CATTCAGATA CACTTCCTGA TTTTATGGTT	2040
CGTGAAGTAG AATCAATTTG GAATGAGTAT GAACTTTTA ATAATATTCG TGTAATTGAT	2100
GTGCGAGCTG ATCTAGCATA TTTTAAACAT CTGAACTTT TATCTAATGA GTTAGATGAG	2160
GTACTGTCTC AGGTTATTGT CGAAATGATT GACTTTTATA ATATTATTAC TGTAAAACGT	2220
GGTTTATCTC AAAATAAGAG TCATGGGGAT ATTTTACAAT TACTTTTCAGA TGAAGGAAGT	2280
ATTTCTGCTA AAGAATTTAT ATACATTGTA GAAATCAAG AAATATTTGT GTGGTTCAAT	2340
AAAATAAATC CAAGCTTAGA TTCAATCTTT TCAACTTATG AATTGAAGAT GCAGGACGCA	2400

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ACAATTTTCAT CTTCTGAGTT AGAATTTTTA TGTGATTAC TATTGTATAA AACTTTAGAT	2460
CAAGGAAGGT ACAATGTAGA GGGGCCGTTA GTTCTTGCTA GATATTTATT GGGATGTGAG	2520
TTTGAAGTAA AGAATCTCAG AATGATCATA TCAGCTCTTC AAAATACAAT TCCCTTTGAA	2580
TCAATAAAAG AAAGGATACG CCCACATTAT GGAAGCTAAT AAGTATAAAA TTGGCATAAT	2640
TGGTAGCCGT GATATTATTT TACCATTAG CATGATTGGG TTTGATATAT TTCCTGCCTA	2700
CCAAGAACAA GAAGCTATAA ATACACTAAG AAAATTAGCT CAATCTGATT ATGGTGTGAT	2760
TTATATCACT GAAGACATTG CTTCAATGAT ATTAGATACA ATTCCGCATT ATGATTCCCA	2820
AGTTGTGCCT GCTATTATTT TATTACCGAC TCATAAACAA GGTTTAAATT TAGGATTAAA	2880
ACGTATAGAG GATAATGTAG AGAAAGCAGT AGGACACAAT ATTTTATAAT AATGTACAAA	2940
ATTGTCTGTA ATATTATTCT ATAATTTTGT GACTTAGTAA GGAGAATAAC TTTGACTCAA	3000
GGGAAGATTA TAAAAGTATC GGGACCTCTA GTTATTGCAT CAGGTATGCA GGAGGCTAAT	3060
ATTCAAGATA TTTGCCGTGT AGGTAAGCTA GGGTTAATCG GTGAAATAT TGAAATGAGA	3120
AGAGATCAGG CATCTATCCA AGTCTATGAA GAAACATCTG GTCTTGGTCC GGGAGAACCT	3180
GTGTTCACAA CTGGAGAACC TCTCTCGTT GAATTAGGGC CAGGATTGAT TTCTCAAATG	3240
TTTGTATGCCA TACAACGCCC ATTAGATCGA TTAAATTTGG CTACTCATAA TGATTTTCTA	3300
GTTCGTGGGG TAGAAGTTCC AAGTTTGGAT AGAGATATTA AGTGGCATTT TGATTCCACT	3360
ATAGCAATTG GTCAAAAAGT GAGTACGGGT GATATTCTTG GAACTGTCAA GGAAACCGAG	3420
GTAGTTAATC ATAAAATTAT GGTTCCTTAT GGAGTATCTG GAGAAGTCGT TTCTATTGCA	3480
TCTGGCGATT TTACAATTGA TGAAGTTGTA TATGAAATAA AAAAATTGGA CGGTAGTTTC	3540
TATAAAGGAA CGCTTATGCA AAAATGGCCT GTCCGCAAGG CGCGTCCTGT TTCTAAACGT	3600
TTAATTCCAG AAGAACCATT AATCACAGGT CAACGAGTTA TTGATGCATT CTTTCCAGTA	3660
ACCAAAGGGG GAGCTGCAGC AGTTCCTGGA CCGTTTGGAG CAGGAAAGAC AGTTGTACAA	3720
CACCAAGTAG CTAAATTTGC CAATGTTGAT ATTGTTATTT ATGTCGGTTG TGGAGAACGT	3780
GGAAATGAAA TGACGGATGT ACTGAATGAG TTTCTGAGT TGATTGACCC TAATACCGGA	3840
CAATCAATTA TGCAACGGAC AGTTCTGATT GCTAATACTT CAAATATGCC TGTGCTGCT	3900
CGTGAGGCTT CAATTATAC AGGAATTACC ATGGCTGAGT ATTTTCGTGA TATGGGCTAC	3960
TCTGTGCCA TTATGGCTGA TTCAACTTCA CGTTGGGCAG AAGCGCTACG TGAAATGTCA	4020
GGACGTCTAG AAGAAATGCC TGGTGATGAG GGTATCCTG CTTATCTGGG AAGTCGTATC	4080
GCTGAATATT ATGAAAGAGC AGGACGTTCT CAGGTTCTAG GGCTTCCAGA ACGTGAAGGA	4140

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ACGATTACTG CTATTGGAGC TGTATCGCCA CCTGGTGGAG ATATTTTCAGA ACCAGTTACT	4200
CAAAACACTT TACGGATTGT GAAAGTTTTT TGGGGGCTTG ATGCTCCGTT GGCACAGCGA	4260
CGTCATTTTC CTGCAATTAA CTGGCTTACA TCTTATTAC TATATAAAGA CAGTGTGGGC	4320
ACTTATATAG ATGGTAAAGA GAAGACAGAT TGAATAGTA AAATAACTCG TGCGATGAAC	4380
TACTTACAAC GGAATCTAG TTTAGAGGAA ATTGTTTCGTC TTGTTGGAAT TGATTCTCTG	4440
TCTGATAATG AACGACTAAC GATGGAATTT GCTAAACAAA TTCGAGAAGA TTATTGCAA	4500
CAGAACGCTT TTGATTCGGT AGATACATTC ACTTCGTTTG CAAAACAAGA AGCAATGCTA	4560
AGTAATATTC TCACTTTTGC TGATCAGGCA AATCATGCTT TAGAGTTGGG TTCCTACTTT	4620
ACAGAGATTA TGGAAGGTAC CGTGGCAGTT CGAGACCGTA TGGCGAGAAG TAAATATGTT	4680
TCAGAAGATA GATTAGATGA AATCAAAATT ATATCAAATG AGATTACACA TCAAATTCAT	4740
TTGATATTAG AAACAGGAGG TCTATAAATG AGTGTTATAA AAGAATACAG AACTGCTAGT	4800
GAAGTTGTTG GGCCTCTTAT GATTGTTGAA CAAGTAAATA ATGTGTCTTA CAATGAGTTA	4860
GTTGAAATTC AACTTCATAA TGGAGAAATT CGTCGTGGAC AAGTTTTAGA GATCCACGAA	4920
GATAAAGCAA TGGTTCAGCT TTTTGAAGGA TCTAGTGGAA TAAATTTAGA AAAGTCTAAA	4980
ATTCGTTTTC CTGGTCATGC ATTAGAATTG GCTGTATCTG AGGATATGGT TGGTCGTATT	5040
TTTAATGGGA TGGGAAAACC AATTGATGGT GGACCAGATT TAATCCAGA GAAATATTTA	5100
GATATTGATG GTCAAGCTAT TAATCCTGTA TCTAGAGATT ATCCAGATGA ATTTATTCAG	5160
ACAGGGATCT CCTCTATTGA TCATTTGAAT ACTCTGTAC GTGGTCAAAA ATTACCAGTA	5220
TTTTCAGGTT CGGGCTTACC TCATAATGAA TTAGCTGCTC AGATAGCAAG ACAAGCGACT	5280
GTTTTAAATT CTGATGAAAA TTTTGGCGTT GTATTTGCAG CAATGGGTAT TACTTTTGAA	5340
GAAGCTGAGT TTTTATGGA AGAACTCAGA AAAACAGGAG CGATCGATCG TTCGGTTTTA	5400
TTTATGAACT TGGCAAATGA TCCTGCAATT GAGCGTATTG CAACTCCCCG CATTGCTTTA	5460
ACTGCGGCAG AGTATCTAGC TTTTGAAAAA GATATGCACG TTCTAGTTAT CATGACGGAT	5520
ATGACTAACT ATTGTGAAGC GTTACGTGAA GTCTCGGCAG CTCGCCGTGA AGTTCAGGG	5580
AGACGAGGCT ATCCGGGATA TTTATATACA AATTTATCAA CTCTATACGA AAGGGCTGGT	5640
CGCTTAGTTG GTAAAAAAGG TTCGGTGACA CAGATTCCTA TTTTAACAAT GCCAGAAGAT	5700
GACATAACAC ATCCAATTCC TGATTAACT GGATACATTA CTGAAGGCA AATTATTTTG	5760
TCGCATGAGT TGTATAATCA AGGTTATCGT CCACCAATCA ATGTTTTACC TTCTCTCTCT	5820
CGATTAAAAG ATAAGGGATC TGGAGAAGGT AAAACTCGTG GAGATCATGC TCCAACATG	5880
AATCAACTGT TTGCAGCCTA TGCCCAAGGG AAAAAGGTTG AAGAGTTAGC AGTAGTATTA	5940

GGAGAATCGG	CTTTATCTGA	TGTAGATAAA	TGTATGTGA	GGTTTACAAA	CGGTTTGTAA	6000
GAAGAGTACA	TAAACCAAGG	ATTTTATAAA	AATCGAAATA	TAGAAGATAC	GTTGAATCTT	6060
GGGTGGGAAT	TACTATCAAT	TCTTCCTAGA	ACAGAGTTAA	AACGTATCAA	AGATGATTTG	6120
CTTGATAAAT	ACTTACCTTT	GGTAGAAGTT	TAATCCGGAA	ATGGAGTGAT	TATCTATGGT	6180
ACGTTTGAAT	GTAACCAAA	CTCGTATGGA	ATTGAATAAC	TTAAAGGAAC	GTTTGACAAC	6240
AGCTGAACGT	GGACATAAGT	TATTAAAGGA	TAAAAGAGAT	GAATTGATGA	GGCGATTTAT	6300
TTCTTTGATT	CGTGAGAATA	ATCAACTTCG	GAAAGAAAGTG	GAAAGTTATC	TAATTGATAA	6360
TCTAAAATCC	TTTGCAGTTG	CTAAATCATT	AAAGAATTCT	CAAAATGGTG	AGGAATTATT	6420
TTCAATTCCA	TCGAAAGAAA	TTGAATTATT	TGTTGAGAAA	GAAAATATCA	TGAGTGTAAC	6480
AGTTCCTAGA	ATGCATATGA	ATATTACTTC	TCAAAATGAG	AACAGTGAAT	ACAGCTATTT	6540
ATCTTCTAAT	AGTGAAATGG	ATGATGTATT	TGCTACAATG	AATAGTTTAA	TTTATAAATT	6600
ACTAAGACTG	GCAGAAGTTG	AAAAAACGTG	TCAGTTAATG	GCTGATGAAA	TAGAAAAAAC	6660
ACGTAGACGT	GTAATGGTT	TAGAATACTC	GATTATTCCA	AACTTGTCGG	AAACTATTCA	6720
TTATATAGAA	TTGAACTAG	AGGAGGCAGA	AAGAGCCAAT	TTAGTTCGTA	TTATGAAAGT	6780
GAAGTAGATC	CTTTATTTAG	ATTATTAATT	AGATGAACAA	ATATCAGCTT	GGATAAGGCT	6840
TTAAGCCTTT	CTAAGCTTTT	TTTATTGACA	GTATCAGGAT	ATCTTTTCA	AAATTTTGGT	6900
TTGTTAGATA	ATGAAAATGT	TTCTACTAAT	CTAGATTTAG	GATTAGTAAA	TCGTAAATGT	6960
AATTATATAG	AAAGTAAGCG	CGTCATAACA	AGGTATCTAT	CATTCAATGA	GCTCCTCCTG	7020
TATACTATTA	GTAAGTAAA	ACTATTGGAG	GATATTTTAA	TGCCACAACC	TATTGTTCCCT	7080
GTAGAGATTC	CACAATCTCG	TCGTTTGTAT	TCTAAAAAGA	GAAATGATAT	TCTGCTTAAA	7140
ATTCGTATTG	GCAAGCTTGA	AGTAAGTTT	TTTCAATCTC	TCAATCTCGA	AATGGTAGAA	7200
CAGCTTTTGG	ATAAGGTGTT	GCTCTATGAC	AATTCATCTA	TCTAGCCTAG	GGGAGGTCTA	7260
TCTCGTGTGT	GGGAAAACGT	ATATGAGACA	AGGAATCGAT	TCAGTGGCTT	ATCTGGTTAA	7320
AACCCACTTT	GAATTGGATC	CTTCTCCGG	TCAAGTCTTT	CTCTTTTGTG	GTGGACGTAA	7380
AGACCGCTTT	AAAGTCCTTT	ACTGGGATGG	TCAAGGATTT	TGGCTACTAT	ATAAACGCTT	7440
TGAGAACGGC	AGATTGATTT	GGCTAAGTAC	AGAAAAGGAT	GTCAAAGCTC	TCACACCAGA	7500
ACAAGTAGAC	TGGCTTATGA	AGGGCTTTTC	TATCACTCCA	AAAATATAGT	AGATTGAAAC	7560
TAGAATAGTA	CACCTCTGCT	TCTAAAACAT	TGTTAGAAAT	CGATTTTACT	GTCTGTATCG	7620
ATTTGTCCTG	TTCTTATTTT	ATTTTACTAT	AAATCCATCA	GAAAGTCGTG	ATTTCTATTG	7680

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AAATGAGGAC	TTTCTTTT	TACTCATCTG	CTTTCAAAAA	GCATTCTAGT	CCATCTCCGA	7740
TTAACGATGG	ACTTTATCAC	CTCCTTCTCC	AGTCCTTGTA	TAACATCTTG	GAGTTGATTC	7800
ATGACATCTT	CCAAAGTTTA	AAAGGCTTTA	TTCTTAAATC	CACGTTTACG	AATCTCTTTC	7860
CACACTTGTT	CAATGGGGTT	CATCTCTGGT	GTGTATGGAG	GAATAAATGC	AAAGCCAATA	7920
TTAGTCGGAA	TCTTTAAGGT	ACTTGATTTA	TGCCATATAG	CATTGTCCAT	AACGAGTAAA	7980
AGATAATCAT	CTGGATAAGC	TTGTGAAATC	TCCTATTCTT	AAAGCCCCCT	TAGCGCATAA	8040
CTTTGGCTCA	GCTTCTATTA	TCGCTCACAC	CATCCATCAG	AAGTTTAATC	TGAAGGTACC	8100
CAATTATCGC	CAAGAAGAAG	ATTGGGCTAG	GATGGGTTTA	CCAATCACAC	GTAAGGAAAT	8160
CTCTAATTGG	CATATCAAGG	CGAGTCAATA	CTATTGGAG	CCCCTTTATA	ACCTCTTGCG	8220
AGAGAGACTA	TTGACTCAGC	CCTTACTTCA	TGCGGATGAA	ACTTCTTATA	GGGTGCTAGA	8280
GAGTGATAGT	CAGCTGACTT	ACTATTGGAC	TTTTTTGTCA	GGTAAAGCAG	AGAAACAAGG	8340
GATTACGCTT	TACCACCATG	ATCAGTGTCT	AAGTGGTTCA	GTAGTACAAG	AATTCCTAGG	8400
AGATTATTCT	GGCTATGTGC	ATTGTGATAT	TTTGCGGCAG	TAAGTTAGGA	CTTTAGTCCT	8460
CTAGTTCTGC	CTATGCGATA	GCAGTCCAAG	GTTTAGGAGC	AAGGCGACGC	TAAGCTTGGT	8520
AAACTTCGAA	CGGCTCGTCT	GCTTATCGTC	AACTGGAAGA	AGCTGAACCT	GTTGGATGTT	8580
GGGCGCATGT	GAGAAGGAAG	TTTTTTGAAG	CGCCCCCCCA	AGCAAGCGGA	TAAATCATCC	8640
TTAGGAGCTA	AAGGTTTAGC	TTATTGTGAT	CAGTTATTTT	CCTTGGAAG	AGACTGGGAG	8700
GCTTTGCCAG	CTGATGAACG	ACTACAGAAA	CGTCAAGAAC	ATCTCCAGCC	CTTAATGGAA	8760
GACTTCTTTG	CTTAGTGCCG	GCGTCAGTCA	GTTTTAGCAG	GTTCAAAACT	AGGAAGGGCA	8820
ATTGAATACA	GCCTCAAGTA	TGAAGAAACC	TTTAAGACCA	TTTTGAAAGA	CGGACATCTG	8880
GTCCTTTCCA	ATAATCTAGC	TGAACGCGCC	ATTAAATCAT	TGGTTATGGG	ACGGAGTAAA	8940
AGAGTCCAGT	GGACTCTTTT	AGCCTAAGCT	CAGTTTAAAA	AAGCGAGGGT	GGTTATTTTC	9000
TCAAAGTTT	GAAGGAGCTA	AAGCAAGAGC	TATTATTATG	AGTTTGTGG	AAACAGCTAA	9060
ACGTCATCAA	TAAATAGCG	AGAAATATCT	ATCCTATCTT	CTAGAATGTC	TTCCAAACGA	9120
GGAAACTCTC	GTAAACAAAG	AGGTTTLAGA	GGCTTATTTA	CCATGGACTA	AAGTTGTACA	9180
AGAAAAGTGC	AAATAAGAAA	TCTCCAGATT	AGGAACTATC	CGTGAGTTCT	CCAGTCTGGA	9240
GATTTTTC	TAGACTTCTT	GCGAAACAAA	ATATGGTATA	ATAGTTCTAT	GAATGATGAA	9300
GCAAGTAAAC	AACTAACCGA	TGCACGATTT	AAGCGTCTTG	TTGGTGTTC	ACGCACGACT	9360
TTTGAAGAGA	TGTTAGCTGT	ATTAAAAACA	GCTTATCAAC	TTAAACACGC	AAAAGGTGGA	9420
CGAAAACCTA	AATTAAGTCT	AGAAGACCTT	CTTATGGCCA	CTCTTCAATA	TGTGCGAGAA	9480

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TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTT AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACTATT GTCATGATAT	9780
GAAGTTGTTT AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAATCTT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAAGTAAA AACGTTTAAA ATGATTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT AGTTTTCAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTTA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAAGCAGC AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCAGT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAT ATTTCAGGTG GGCAAAGGCA ACGGATAGCA CTGGCACGTG CATTAAATAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATTGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTTGC AATTTTTTTA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTTC CTGATTGTTT AAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA AAAAAAGCT TTAAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCTTTTGTG TAATACTCTT TGAAAATCTC TTCAAACCAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

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ATTAATTTCT AGAAATATGT TAGAAATTGG TTGAATTCC GCAATCAATT TGTTCAGTTT	11280
TTATTTTCATT TCATTTTATT TAATTAGATT TTCCAATTTT TTAATTCAAG CTAATAATCC	11340
CCAATCGTAG TGATTGAGGA TTGAGTAAAT AAATCTTAAA CAATACCTTG TGCAATCATG	11400
GCATTTGCTA CATTTTCAAA GGCAGCAATG TTAGCTCCTG CAAGGTAGTC TTTATCAAGA	11460
CCGTATGTTT CTGAAGTCGT TTAGCTGTG TTGAAGATGT TTGTCATGAT GTCTTTGAGA	11520
CGGCCATCAA CTTCTTCACG AGTCCATGAG AGGCGAAGAC TGTTTTGGCT CATTTCAAGA	11580
GCTGAAACGG CTACACCACC AGCGTTGGCA GCTTTTGCAG GTCCGTAGAA GATACCATT	11640
TCTTTGTAAA CTTTGATGGC ATCAAGTCG CTCGGCATGT TGGCACCTTC AGATACACAG	11700
ATAACGCCTT GAGCAACCAA ACGTTTAGCT GCTTCACCGT TGATTTCGTT TTGAGTGGCA	11760
CATGGAAGAG CAATGTCATA GTTCCAGCG TAAGTCCATA CAGTACCTTC GTGGTAGGTT	11820
GCAGTTGCTT TTTCAGCTGC ATACTCAGTC AAACGAGCAC GACGTTTTTC TTAAACATCA	11880
ACCAAAAGAT CGAAGTCGAT ACCATTTTCA TCGATGACAT AACCATTTGA GTCAGAAACA	11940
GAAATAACAG TTGCACCGAG TTCAGTTGCT TTTTGAAGAG CATATTGAGC AACGTTACCA	12000
GAACCTGAAA TAACGACTTT CTTACCAGCA AAGCTGTTAC CGTTAGCTTT GAGCATTTCT	12060
TCAGTATAGT AAACCAAACC GTAACCAATT GCTTCTGGAC GAATCAAGCT ACCACCAAT	12120
CCAAGAGGTT TACCAGTCAA GACACCAGCA TCAAATGGT TAAGACGTTT GTATTGACCG	12180
TAAAGGTAAC CAATTTACAG TCCACCAACA CCGATATCAC CAGCAGGTAC GTCAAGTGAT	12240
GGTCCGATGT GTTTTGTCAA TTCAGTCATG AAGCTTTGGC AGAAGCGCAT CACTTCAGCA	12300
TCTGTTTTAC CTTTAGGATC GAAGTCTGAT CCACCTTTAC CTCCACCGAT AGGAAGTCCA	12360
GTCAAGACAT TTTTAAAGAT TTGTTCAAAT CCGAGGAATT TCAAGATCCC TTGGTTTACA	12420
GTTGGGTGGA AACGAAGTCC ACCTTTGTAT GGTCCAACAG CTGAGTTGAA TTGAACACGG	12480
TAACCACGGT TACTTTGAAT TTTTCCATCA CGGTCAACCC AAGGAACACG GAAAGAAACC	12540
ACGCGCTCAG GCTCAGTAAT ACGTGCCAAG ATATTTTCTT CGATATACTC AGGGTGT	12600
TCAAATACAG GTTCTAAAGT GTTGAAAAAT TCTTCAACAG CTGAGGAGAA TTCAGCCTCG	12660
TGCCCG	12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3083 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTTAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTGG TGACGCAAAG TAAGATTGTG AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTCTT CATCTCTTTC	420
CTCCTCGATT GCATTGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCCT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTTCCAAGT TCGTCATAGG CGATAATTTC ATAATGAACT CCACGGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTCT TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCCGAT	840
AAAGGTGGCA ACAAAGTGGT TGATTGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTG	900
GACAATCTCG CCATCATTC AAGCAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAATTCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAG	1140
TTTGGCGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTTCCGCTAC	1200
ACGCTGCTCG ATTTCTTCT TATCAATTTT ACGCAAGCGA AGTGGAAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTTGGTTGGA ATATCATTTA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAAGT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTGAA TTCGATAATT GGCTTTTTC AATTGGCATAA	1560
ATTCTTCTT TTTTCATAGT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680

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CTTCTCTTTC AAGCGTAATA CCTGAGTGTT CCTTGACTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAC TGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAGCGGT CCATTTCCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAAAATTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTCTCTCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCACCC GCATTCTATA	2160
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAAA CTCAAAGCCA GTTAAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCAC	2340
CATCACGAAC GATGATATTG CTGCAATTGC CAAGAACCAT CCAAGGGATA TTTCTTGGT	2400
TGGCAAAATTT CACAACGCGA GCCAACTCAA AACGATTTTC TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTCTCTAA GATTTCAGC ATTTTCTCTC TTACAGACAT GTCACCTCTC CTTTACAAA	2580
ATTCAATCCA TTATACCATT TTTAGAGACA TTTGACGACC ATAAAAATAC CTTGTTTGA	2640
TTTTGCATAA GAAAAAGAGG TTCCCCCTT TTTATGATTT TTTACAAAAG ATTTCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTG	2760
TCAACCAGCC TACTTGAAA AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTCGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGACTG AATGGTTTTT AACATATTTT CAGACAGTAA TTGCATAACC TGTGGATTCT	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

931

CCGGAGGATA TTGACCACCA CCAAAAGCAG GGGGAAAATC GAAATCAACC AATAGTAGGC	60
TACTGCGACA CTGGTCAACT CACTATCTGA TGCTTGATAA TAATGCAAAA AAGCTTTTAA	120
TAAAGGTTTG TCTATCAGCT CTTTCCACCA CTTTTTCATG TCATACTCCT TCACTTATAA	180
TCTTATACTC AATGAAAATC AAAGAGCAAA CTAGAAAGCT AGCCGCAAGC TGCTCAAAAC	240
ACTGTTTTGA GGTGTAGAT AAGACTGACG AAGTCGATCA CATACATACG GTAAGGCGAC	300
GCTGACGTGG TTTGAAGAGA TTTTCGAAGA GTATTAACTA ATTTCTTCTT ACCAATTCCA	360
CCATATCATA CGGTAGGGTA TTGGCAGCTT CCTCAAGGA ATAGTTCTCT AAGTTATTTA	420
CATTTTGTGC TAATTTCTTG GCATACTTAG TCGTAATCAA TCGTTTTTCT TCGTATTCGA	480
AAATCAACTT GCGCTCCAGA TAATAGCCTC TCAGCATTTT ATCGATATTG TTGGGTTTGA	540
CACGATGTAT AACCCGTTCC ACAAAGGCAC CACTGCTGAT AATAGCTGTT TCTCGAAGAC	600
GAGACTCCTG CATAAACTA ATCAAAGAGC GTCTGTAGAC TCCCTTCAGG TTTTCCAAAC	660
TTTCAATAAT CATCTCTGTA TTGGCAAGAT AGAGCTCTGC AATTTGGTCA TAATCAAGAG	720
CACGGAGACG GCTTTGCTCC TTGTTCTTCC AGCTACGGAA GGTCTTTCGG AGAGTAAAAA	780
CTTCATGAAG GAGAAAAAGT AAAATCCTCA AGGAAACAAG AAAATAATAG GTCAGTCTTG	840
AGGCAAGTTT ACGATTGATT CCTTGTCTA TATTTTTCAG ATAACGTTGG TAACTCGGT	900
AAGCAGGATT GCTAATGTTT CCCTCTTCAT AGGCCTGTTC CAAACCATCA CTTTCAATAC	960
TAAGAATCAA GAGTTTCAAA GCAGCCCAGT CTTCTTGATC ATCCTGGTTT TCTTGGCTTA	1020
AAATGAGATT TTCAATACGT CCATGATAAT TGTCATAGC CGCATAGAGG GGAAGTTTAT	1080
TTCTGGTGTC TTCCAACCTT TTTTCCAACCT CTAGCGTTAC TTCATTCAAA ATGGCGATAT	1140
GCATAAGATA ATCCTTGCTT TCTTCTCTT CATCAGAAAG ATGAGGCAAG ACCAAGAGAC	1200
CTGTTAAAAA GCTAACCAAGC GTCACACCTG CAACAAGGAA AAGCAAAAGA GGATACTCCT	1260
GTTCTAGATT ACTTGGTATC AAGAGAATCG TAGCAATCGA CACCGTTCCC TTAACACCTG	1320
AAAAGGTCAA GAGAAACATG TCCTTCATAT ACTTATTTAG CTTTTTCTTG AGGCGTCGGG	1380
TTCTATAGGC ATAATAGCCA TAGATCATAA TAAAACGAAT GACAAAAAGG ACAAAGGTAA	1440
GGGCGATAAG AGATAGCAAT AAAAGTAGAG GATTATAGAT TGGATTGGTC AAGATAGGTT	1500
CTGCTATCAT TTCCAACCTC ATCCCTAAAA TCACAAAGAC AGAACCGTTG AGCATAAAGG	1560
TCACTGTATG CCAGACCGTC TCGGTCACCG TATCCACTTG GGCTTCGAGG AGCGTGATTT	1620
TCTTGAAGCG ACTTGCTTTT AAAATTCCAG CAACTACGAC GGCAATAATA CCTGAAACAT	1680
GAACTTCTTC TGCCAGAAAG AAGGTCACTA GAGGCAAACT CAATTCTAAT AAAAGTTCAC	1740

	932	
TGGCAATATC CGTTGCGCGC ACACTTAGCA AGAAGGTATG GAGGAAGCGG TTGGTCATGG	1800	
CTGTTAAAAA TCCAATTAAA AAACCGCCTA GGATTGAAAA GATGAGCGAA CTGCTAGCTT	1860	
GCCCCAGAGA AAAAGCTCCA GTTGTCGAAG CTGTCAAAGC TACCTGAAAA GCCACCAAAC	1920	
CAGAAGCATC ATTCAAGAGT CCTTCGCCCT TAAGAATATT GGACACGCGC TTAGGAAAGC	1980	
TAAAACGCTC CGAAAGAGAG GCAAAGGCCA CCAAGTCCGT AGGACCAAGG GCTGCCCCAA	2040	
CAGCCAAGCA AGCTGCCAAG GGAAGGCTGA ACCAAAGAAG ATGGGCCAAG CCACCCAAAC	2100	
TCAGGGTCGA GATAAAAATC ACTGGAAATA TGAGATAAAC AATGATTCGC CAGTGTTTTA	2160	
AAATAGCCGT AACATCTGCT TCTTCAGCCT CTCGGAAAAG CAAGGGTCCG ATAACCAGTG	2220	
CCAAAAACAA CTCCTATTAT AGGTGAAAGT CAGTATTGGG TAAAAAGAGA CCAATCACAA	2280	
TTCCCCAAAG AATTTCACAC AAAGGGAGAG GCAAAAAGGG CAGGAGCTTA TTGGTTGTAC	2340	
TTGAGACAAT CAAAACCAAGT AAAAATAGGA TGAGGTAAAT CAGTAATTCC ACGCAGCTCC	2400	
TCCTTAATCT TTTTACAAC AGGATTCAAA TATCTCCTTC TGCTCTTTGA TTTTTCGGTC	2460	
AATCTTGGA CAGTCTTTGT GCTCAATTTT TCTCTGGCAC CGTTCCATTT CAAGAGCAAC	2520	
TAATTTTTTC TTGATTTTAA GCATTTTTTT GCTCATATGC GCTTGGTCTA GCACGCCCAT	2580	
CGCTCGTTCG TGGTGGGTTG ATTCAACAAA ATTCTGGCGC ATGGCATCCA GCTTTTCGTG	2640	
TAAGTATTGT TTATCCATGT CTGTATCTCT CTAATTTTTT AATCATCACT AAAACGGCG	2700	
GGTTGTTGAC TTGGTTTAAA GTTCGGTAAA TGGCAGCTGT GTACTCTTGT TGCTTCAACT	2760	
GGATCACAAA ATCCAAGACA GCATCTCTCT CGAGATCGCC TCCTTCATGA CCATAGTAAA	2820	
TCATAATAGC AATTTCGTCCA CCTTTGACAA GTAAGCCACA TAGCTTTTCT AATGCCTCAA	2880	
TCGTTGTCTG CGGTCGGGTG ATGACAGACT TATCAGCTGC CGGCAATAG CCCAGATTAA	2940	
AAATCCCTGC CTTAGCTTTT ATCACAACCT GGTCCAGTGT CTCATGGCCT TGCAAGATTA	3000	
ACTGGGCATT TGTCAAGTCA GCCTGATGCA AACGCTCTTG GGTCTTTTCC AAGGCTTGCT	3060	
TCTGAATATC AAAGGCATAG ACTTGCTTGG CTAGCTTGGC TAAAAAAGC GTGTCATGAC	3120	
CATTTCCCAT AGTCGCATCC ACTACGACAT CCTCTTTTGT CACGACCTCA GCCAAAAAT	3180	
CATGTGCCAT CTCAAGTGGT CTTTTCATTT TCAAACCTCT GTTTTACAGC CTTGCATCCT	3240	
TGAACACTTC CACGACGTCG CATCTCCATC TCAATGCTGT TGAGGACTTC CCATTTATTG	3300	
AGGCTCCACA TAGGACCAAG CAGCATATCC CTAGGCGCAT CTCCTGTAAT TCGATGGATG	3360	
ACGATATGTT TGGGAATAAT TTCCAGTTGG TCACAGATGA CCCTGACATA TTCGTCCTGA	3420	
CTCATCAATT GTAAACGCCC CTCATGGTAA TCTCGTTGCA TACGAGTATT TGTCATAAGA	3480	
TGGAGCAAAT GCAGTTTAAT CCCTTGAATA TCGTTATCCG TGACACAACG GCGGACATTT	3540	

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TCAACCATCA TCTCATGGGT TTCACCAGGC AAACCATGGA TCAAATGGGA AACAATCTCA	3600
ATTTTGGAT ACTTCTCAA ACGCTTGACC GTTCCACCT ACAATTCATA AGAATGCGCA	3660
CGGTTAATCA GGTGAGAGT TGCTTCATAA GTAGTTTGCA AGCCCAATTC AACCGTCACA	3720
TGCATGCACT CCGATAACTC AGCCAAATAT TCGATGGTTT CGTCTGGTAA ACAGTCTGGG	3780
CGCGTCCAA TATTGATTCC TACCACACCT GGCTCATTGA TAGCCTGTTC ATAACGCTCT	3840
CGAATAACTT CCACCTTTTC ATGGGTGTTG GTAAATTTT GAAAATAAAC CAGATACTTC	3900
CGAACATCCG GCCACTTGCG GTGCATAAAG TCAATTCCT TATAAAATG CTCACGGATA	3960
GGCGCATCCG GTGCCACAAT GGCATCTCCA GAACCAGAAA CCGTACAAAA AGTACAGCCC	4020
CCATGAGCCA CAGTCCCATC ACGATTGGGA CAATCAAATC CCGCATCAAT AGGGACTTTA	4080
AAAGTCTTTT CTCCAAAGAG TTTTCGATAA TAATCATTC AAGTATTATA AGATTTCATG	4140
ACTTTCATTA TAACAAAAT CACCCACAAT CTCAAAAGCC TGACTTTCCT ATAAATTCCT	4200
CTGTTCTCG TTTCCATTAG CCTTTTMTA TGATACAATA TGGGTATGAT TTTAATGAAA	4260
TTAGCATCTA TTTTATTATT GATACTGACC TTAGTCGTCT GCATTATCCT AACCAAACCT	4320
TTTAGATTAA AAAAAGTAGG ACGAAACTTT GCGGATTGG CTTTCCAGT CTTGGTATTT	4380
GAGTATTACT TGATTACAGC TAAACCTTT ACCCATAATT TCCTCCCTAG ACTGGGGCTA	4440
GCCCTCTCGA TCCTAGCCAT TATTCTCGTC TTTTCTTCC TTTTGAAAA ACCGAGCTTT	4500
TACTACCCTA AATTTATCAA ATTCTCTCG CGTGCAGGAT TCTTATTAAC CCTTATCATG	4560
TATATAGAAA TGATTGTTGA ATGTTCTTA ATGAAATAGT CGAATCCCTA AGCATTTTCT	4620
AGGGATTTT GCTTCTCTA CAAAATAGTA TAGACAATAA CACTATACAA TTTTATACAA	4680
AGAAAAGAGT CTGGGACAAT AGTCTCTTAT ATCCAAAAG GCAACGGATT TGCCGTTGCT	4740
TTTTTGATG GTTACGATAG TCTTGGTAAA ATAGAATTGC CCAATAAACC ATTTAGAAAG	4800
GCTATCCCAT GCATATTCAC TATAACACAA ATCAAACAAC TTTACCACTA GAAATCAGTT	4860
CCTTCTTACC ACAAGATCAT CTCGTTTTTA CTATTGAAAA AGTGGTGAAT ACCTTGGAGG	4920
AACGTCACCT CTACACCTCC TATCATGCCT TTGATCGCCC GTCTTATCAC CCTAAAATGC	4980
TTGTATCTAC TCTTCTATTT GCCTATTCAC AAGGGATTTT CTCTGGTCGA AAAATTGAAA	5040
AATGGAAGAG TTAGTGACCT TAGATTGTTT GTTTATTGAC AGAACTAAGA TTGAAGCCAA	5100
TGCCAACAAG TATAGTTTTG TGTGGAAGAA AACGACAGAG AAATTCTCCG CCAAACCTCA	5160
AGAACAGATA CAGGTCTATT TTCAAGAAGA AATCACTCCC CTTCTGATTA AATATGCCAT	5220
GTTTGATAAG AAACAAAAGA GAGGGTATAA AGAGTCAGCT AAAAAGTTAG CGAATTGGCA	5280

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CTATAATGAC AAGGAGGATA GCTACACACA TCCTGATGGC TGGTATTATC GTTTTACCA	5340
TACCAATAT CAGAAAACAC AGACAGACTT TCAACAAGAA ATCAAGGTTT ACTACGCCGA	5400
CGAACCTGAA TCAGCCCCCTC AAAAGGGACT GTATATGAAC GAACGCTATC AAAACTTGAA	5460
AGCTAAAGAA TGTCAGGCGC TTTTATCTCC CCAAGGTAGA CAGATTTTCG CTCAACGCAA	5520
GATTGATGTG GAACCTGTCT TTGGGCAGAT AAAGGCTTCT TTGGGTACA AGAGATGTAA	5580
TCTGAGAGGG AAGCGTCAAG TGAGAATTGA CATGGGATTG GTACTTATGG CCAATAACCT	5640
CCTAAAATAT AGTAAAATGA AATAAGAACA GGACAAATCG ATAAGGACAA TCAAATCGAT	5700
TTCTAACAAT GTTTTAGAAG TAAAAGTGTA CTATTCTAGT TTCAATCTAC TATACAATAA	5760
GAGAATGACT CAAAATTAAG AAGCTAGAGT TCCACAATG GAAATATCTA GCTTTTTTGT	5820
GGTTGAGAAC TATTTTGTCT CAGGCTCTTT ATCTTCTATT TAGGACAAGA GTTTTTCTTT	5880
GGTCTTTAAT GATAAAGAAG GTATCAAAAT TTCTAGTCTT CTTTTTTACC TTTAGTAACT	5940
ACTAATCCTG CACTCAAACC TAGAAGAGTT AAACCTGCTG CTACTGCTGC TTGGCTTGCC	6000
GCACTACCTG TACTTGGTAA CTGGGCTTTA TTAGTTTGAC TAGCTTCACT TGAATCAATT	6060
GGTTTTGTAT CTGCTTTTTC TGACACTTGT GGTTTTTTAG CTTCTTGAGC TACTGGTTTG	6120
GTTCCAACCA AGACGATGCG GTCTGTGCGA ACTTCTACCA CTTACGGAG TTTTTCTTCC	6180
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TCTACACGAG TTTCACCTAG ATACAGTGTT GAATCTTTTT TCTCAACTGT CTTGTATGCC	6300
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TCTGAAACGA GCGGAACAAG TACTGGAAAG CTATCTTCTC CACTATCTAC CACAGTTGAA	6480
GCTACTTGAT TGTTTTCTTC AACTGAGACT TTTGGCCGTT GACCTTTATA GGTAAATTGA	6540
TAGTCTTGAC GATTTTCAGC GAAATCAGCA AGTTCTTTTC CATCTACAAG AATCTTTGAT	6600
TGAGTGCTTT CTTGAGGCAA TTCACTTGGT GCAAGGAAGG TCATCTCAAT CATCGCAACA	6660
CCGCTCTTAT CTGCTTTACG CTCCATACGC CATCTCATAG CTTTGGCTTT GATAGCTTTA	6720
AATGTTACGT TGATTTTCATC ACCAGCTGCA ATGTCTTTAT CCGCACGATA AGGAACAGCT	6780
TCCCAATTTT CTGGATTGTT GAATGGATGG TCTGCGTCGT AGGCTTGGTA GTTTGAATAG	6840
TAGGTTGGCA CTTCAAATC TGGACCGACA TAGCGTTCTA AAACGAGTTT AGATGGTGCA	6900
TCCGTACCAC TATCTGCAAA GAACTGAACT TTTCTTGTG TAACAGTCCG TTCTACAATC	6960
TTACCATTTT CACGGAAAAT CACACCGCT GATACTTCTG GATTAGAAGA TGGTGTGGT	7020
GACCAGTTTG TCCAACGACG ATTTTCTGAA TGATCTCCGT CATTGAGATA GTCAACGCGG	7080

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ACTTGTTCG CAAAGATTG TACCTCTGTG ATAGACGTT CACGCTTGTT ATCTGCTTTA	7740
ACCATGCGAA TACGAACAGC ATAGGTTTCA ACTTTATCAA AGCTAAAGTG GTTCATTTCT	7800
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AATCCGACAC TTAGATTATC AACGGAGCGT TTGCTCAAGA TACCTGAATC TCCAAACAGA	8040
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TTATTGTAGG AAATGAGCTT GTCATTAAAC TTTGAACTG GGTCGCTTGG ATTTGAGTCT	8160
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CCATTAACTG TAAAGACACC TTCCTTAGCG TATTGCTCTG GACGAATCGC ATCCCATGCA	8340
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GGTGCTTCTG CGATTGGAGT TGTCACACTG ACTTCTTCAA CTGAAACGAT ACCTTCTACA	8460
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TTATGCAACT CAAGCATTC TTTACGAATT GCGACTTCCC CTTCAACACT TGTAAGAAG	8820

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AATTTGACAG	TTTGGTCTTC	TTTGAGACTG	TCAGCTTTT	CCACTTGCAA	GCTCAAGTGA	8940
GCAATTTTTC	GCGCTTCTTC	AAGGAATTGA	ATTGCATAGG	TTTGAAGAGG	GCCACCATCT	9000
TTAGGCTGAA	TAAAGATGCT	CGCACGCATG	CCGTTTGCTG	CGCTTGCTTG	AAGAACTGTA	9060
ACAGCTGCAT	TTTTAGCACT	TGCTGTGACT	TCTGGCAACT	TAGCTCCATA	AGCAAGAGTG	9120
CGGTATTGCA	TTGGTTTTTG	ACTAGTAAGA	CCTGTTACTG	CCTCACCACC	AACCGTTACA	9180
GTTGGTACTG	CAGGTGCCGC	AGGATTGCCT	TCTTCTACCA	CAAGGGTTGC	ATGAATTGGT	9240
TGACCTTCTA	AATAACCGGT	CGCTTGAATA	CGAGAACCTG	GAATTGCTAA	CTTAGCTTTA	9300
TCTTCTTCGG	CAATCTCCCA	CTTGCTCCACT	TCATACTCTT	CAACACTTCC	ATCAATCAAA	9360
ACATAGGAAA	CAGATTTGTC	TACAGAATTC	AAGTCAGTAT	TTGGAGCAAT	ACGTTTCACA	9420
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GCCATACCTT	TCACCGTTAC	AATACCAGGC	TTGCTCACAT	CTACTGAAGA	CCAGGTTACA	9540
GGACGTTCTG	CACGGCTACC	ATCACTGTAT	ACAAACGGAA	CAGTGGTAGG	CATTTTCAGGT	9600
GCCTCTCCAA	TAATGGTCTG	TACTTTTGGC	ACTTCTGTCC	CCAAAACAGT	CTTCTCTGT	9660
CCTTCTTTCT	TACCAGTAAA	GACAGTGACT	TGGTTCGATT	TCAAGAGATC	AGAGTGGGCA	9720
GTCAGGGTGA	ATTTCCCTGC	TTGTTCAGTT	GATTTGACAA	TGGCAACACC	TTTACCATTA	9780
AATGCTTTAC	GAATCCAAGA	ACCATCTGCT	TGCGCCTTAT	AGCGTTCACG	GCTGGCTTGT	9840
TCTCCGTTAT	CTACACCGAC	CAGTTGACCT	TGGCCATGCA	ATTGGAAGCG	AACCAGATTA	9900
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TCCAAGGTAC	CTGGTTGATA	GGCAACTTTC	CATTCAAGAT	AAAGTTCATT	AGCATTTGCA	10140
CCTTCTTGGT	AAGTCCGCCC	ATCGCTGGTT	TGTTTTTTAT	TGAAAGTCTT	AAGACCAAGA	10200
GATTTTCCAT	TCAAGAACAA	TTCTTACACTA	GAAGCATTCG	AATAAGCACG	AACTGGAATC	10260
TTACCTTCTG	AGTCAGCTAC	TTTGATGCT	AATTCTTTGT	TTTCCCAGTT	CCAGTGAGGA	10320
AGAAGGTGTA	CCATCGGTTT	CTTCTTAACA	GAAACCCATT	GGCTTTGGTA	GAGATAGAAG	10380
TCATGTTTTG	GAATGCCGGC	TGTATCTACG	ATACCAAAGT	AAGAGCTCTT	AACAGGAGTT	10440
TGATTTTGGT	TGTGCCATGG	TGTAGGTTCA	CCAATATAGT	CCGTACCTGT	CCAGATAAAC	10500
TGTCCAGCAT	AGCCAGCGTT	GTCACGGTCA	AAAGTCCATG	AAGCGGTTGC	TGTTTTCCCC	10560
CAACCCACAC	GATCATTTCC	ATAATCTGAC	TGTTTCATAAT	TACGCTCAGG	TCCATTGCTA	10620

937

TGTTTCAATT CACGTTTCAGG GCGATAGTAA CTTCCACGTG TACGGGTAGC TGAAGATGTT	10680
TCTGATCCAT AAATCAACCA TTTTGGATGC TTAGCTCTAA GGGCTTTGTA ATTATCTTCA	10740
GAATAGTTAA ATCCAACAGC ATCGAGTTCA TCAGCAATTT TCTCATGCCC TCCGCTACCA	10800
TTACCGAAAC GGAATTTATC TGCTCCCATG GTAACATAGC GAGTCTTATC AACATCCTTG	10860
ATAACCTTAA CCAAACGTTT AACAGTTGCT AAAGAGTGGG CATCACCATT AGCTTCACCT	10920
ATTTCATTAC CAATTGACCA CATGAAGATA GCAGGGTTGT TTTTGCCTCT TTCGACCATG	10980
GTACGTAGGT CAAAATCAGA CCATTTTTC A CTTTTCGAG CTTCTGGGTG AGTGGCATCT	11040
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TCTTCCTGAA CGAGTAAACC TAGTTCTGCT GCGATTGCA AGGTTTGCTC ACTAGCAGGG	11160
TTGTGGGTTG TACGGATGGA GTTAACTCCC ATCTCCTTCA TTTGTTTGAG ACGGCGATAT	11220
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TGGAATTTAA TACGTTCAAC ATTCAAAGAG AAACCTTCAT TTGGAGTCCA GTGATAGTAA	11340
CGGTAACCAA ACAATCCTT CTTAGCATCA ACCAATTGAC CGTCACGGTA AACACGCGTA	11400
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TCTAAAATCG CATCTAGGCT TGTTGATTCA TGTGCTTTTA AGGTACGACT CGCTGTACGA	11520
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TGGTCTTTGT CGTCCGTATT GACGATTTTG CTGGTCACAT GAGTTTCAAC CTTGCCATGT	11640
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TTGGTGATAT CATATGAGAA CTGGTTATAA CCATTTGGAT AATGCCCCAC TAACTGACCA	11880
TTGACATAAA CTTGAGAATC CATGTAGACG CCATCAAAG TAAGGCGAAC ATTTTTCTTG	11940
AGGTCTTTTT CATCTAGTTT GAAAGTCTTG CGATACCAAG CTTCCCCACC GTTGAGCTGT	12000
CCACCTTCAT TTTGTGCAGG AGATTTCATG TCGAAATCGT TAAAGATACT CCAGTCATAC	12060
GGTAAATCTA ATTTTTTCCA CGTAGATACG TCTGCATCAG GTTTAATGGC TTCCTTAGAA	12120
TTTGCATTGA GTTTAAAGTA CCAATTTTGA TTAAATCCA CTTTCTGTC TTCAATCATT	12180
TGATTCACCT CTTCAATTGT TACAGCTTTA GCATCTTCCT TGAGCGGTTT TTCTTGATTT	12240
GAAGCTGTG ATTCTATCCT TGGAGCTTTT TCTCCGGTT TAGCAGACAC TTTTCTCTCT	12300
TTGGAGTTA CGCCTTCATC TTCTTTCTTC TCAGATGCAA TAGCCTCAGT TGAAC TAGGT	12360

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TCACCTTGTT CTGTCCTTC AACTATATTT TTAGTTTCCA AAGCTTTATC AGCCTTTTCT	12420
TCTACTATCA TTTTTCCTC TTTAGGTTTC TCAGCAGTAT GAGTAATAAG TGTTCATCC	12480
GCATAAACTA CAGATTCTCC AGCTATATTT CCTCCTAATA AAAGTGCACA AGTCCCAATC	12540
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TGGCCTTTCC CCATAAAACC CTCCTTATAT TATATTTAGT GCAGTTAGCT ACTACCAAAG	12660
CCCAAGTGGT ATACATGGTA TGACAACCTA GTTTCACAA TTTACACTCT GCGAAAATCC	12720
AATTCAAACT TCGTCAGTGT CGCCTTGCCG TAGATATGAT TACTGACTTC GTCAGTTTCA	12780
TCTACAACCT CAAAACCATG TTTTGAGCTG ACTTCGTCAG TTTTATCTAC AACCTCAAAA	12840
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ATAGAATACA AGGAAGACTA CTGCACCAAG GATTGCTTTG ATATCACCAG TTGTAGTGT	13140
ACCAATTGTC CAACCAAGAA GTTTTTCGAT TGGTCCTTCA AGAGTAGAGT GAGTAATCAA	13200
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TGGTGCAATA AGTGACCTG AAAGAAGGAA GAGTGGCAAC AAGAGTGTTC CGAAGATAAT	13320
CATACGGAGC AATTTACCAC GAGTTACAAC CAAGAGAGCT GGAGTAACAC CCATAGCGAT	13380
GATACCTGCA AGTGGCAAGA TACCATTTC AACTTTTGAA AGAAGCACTG CTTCAATCAA	13440
CATGATTGGT GCAAGTACGT TGGCACAAGC CCAGATTTCA GCACGACCAG CGATGAATGG	13500
CCAGTCAAGA CCGATATTGA ATTTACGTCC TTGAAGACGT TTAGTAGCAA CGTTTGTAAT	13560
ACCTTGATG AGTGGTTCTA CGGCTGCGAT GAACCATGAA CCGATAAGTG AGAAGAGTTC	13620
CAAAGATACA CCGGCAGTCA AACCAAGAGA CAACCATCCT TTGATAACAA GACGCCATTT	13680
ATCTGCATCT GCAACACCTG CAATTGGATG TGGAGTCCC ATAATACCGA TAACGATACC	13740
AAGGATGAAA CCGATGAAGA ATTTAGATCC CCAGAAACCG ATTTTCTTGT TCAATTTAGC	13800
AGCATCAAAG TCATATTTAT CAAGGCCTGG GAAGAATTT TCAAAAATCT TATCCAAAAC	13860
CATGATAACT GGGTTCATCA TGTAGTTCAT GTGAGTTGAT GTCATTGGTG ATGAACCTGG	13920
GGCGTTAAGA AGGTCATCAA ATGTAGGTTT CATCAAGTCA GAGTTGATAA TTTTCAACAC	13980
ACCGACAAGG ACGATAGCTG CTGTAGCAAT AAAGAGTGAA ACCCCTTGAC TCACACCATT	14040
GTTATCAGCA TACCATTAA TCAAGAGACC TGTGATAGAC AAGTGCCAGA TATCAAAGAT	14100
ATCGACATCA AGTGTATCTG TTTTCTTCAT AGCTAGCATC ACTATGTTGA CAATCAACAT	14160

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GATGAGCAAG AAGTATAGTG TCCAAGCAGA ACCCCAAGTG ATTGTAGCAA GTGGTGCCCA	14220
ACCAACGTCG GTAATACTCA ATTGGATACC AGTGTTTTCA ACGAATTTG CTAGTGATGC	14280
TGAGAAAGCA GTGTTTAGCA TACCGATGAT AGCACCGATA CCTGTAAGAG CGATGGCAAG	14340
TTTGATACCA CCTTCAAGCG CTTTGAGAGAA TTTCACCTCCA AAAAGTAAAG CCAATACTGT	14400
CAAAATGATT AACATGATGA CAGGTCCACC CATTCTAAG ATGGGATTGA AAACCTTTCC	14460
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ACAAATTAGA ATTAGCTTAA TCCGTGTTCT TTAATAGCTG CTTCATATT GTCAAATACT	14580
GGAGCGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCAG CTTGATAAC TGGGATACCT	14640
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TCTTCGTTA CATCTTCAC CATGACTGCA TCACAGTGAA CATCATAACC ACGGTTTGAA	14760
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GGTTGCTTCA GCAATGTAAG TATAAAGGGC TTCTGGTTCA GAAATTTTG ATAGGTCTTC	14940
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTG TTTGACTTGA	15000
ACTTGAATTA TTAATGATAA AGAAGAGTAG GGATACTTCT ACTTCCTTAT CAGGAGCTAT	15060
CATATTGTGA AAAGTTATTG GTTTTCTAA TCGAACAACC ACCACTTCT CAGCTAGATT	15120
ATGAACAATA TCTGTGTGAG GAATCGCTAC ATTTGGCAAG TCCTTTCCCTA GAAATCCAT	15180
ATCTAAACCA GTTGGAAATG ACTTTTCAG CGTGATCAAG GCTTCACGAT AAGTTGGAGT	15240
GACAATTTCT CGTTCCTCCA ATAAAGTTGC AACCTGATCA AAGAGTTGTT CTTGACTATC	15300
CGCTTCTAAG CAAAACACAA GGTTTTGTG AAAGAAATAA TCTAATACCA TAAGTTTTC	15360
CGG	15363

(2) INFORMATION FOR SEQ ID NO: 140:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28882 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT TAATAGTGGA GTGAAATAGG ATACGAACAA ATTGATTAGG AAAATCAAAT	60
GAATTTATAG AAATCTTTTA GCAGTTATGT TATCCTATTC TAGTTTCAAA ACGCTATAGA	120

940

AGCAGCATTG TGCTAGTCKA GATTCAGTTT ACTATACTAA AACGAGTAGC TTGAAATCAA	180
AAAACCCACC CTCACAGGCA GGTTTTATCT GTATTATTCA GCTAGATTAT GCTTTACCTT	240
CTGAACCGAA TACGTCGATA CGTTCTTCAA CCGATGCTTG GATAGCTTTT ACACCGTCAG	300
CCAAGAATTT ACGTGGGTCG AAGAGTTTTT TCTTGTCGTA TTCTGCTTCG TTGCTTCGT	360
AGTCACGAGC AAATTTACGA GTTGCCTTAG CGAATGCGAT TTGGCATTCT GTGTTAACGT	420
TAACCTTGGC AACACCAAGT TTGATAGCTG CTTGGATTG CTCATCAGGA ATACCTGATC	480
CACCGTGCAA TACGATTGGG AATCCTGGAA GAGCTTCTGT CAATTTTTCG AAGTGGTCAA	540
GGTCAAGACC TTCCCAGTTT ACTGGGTAAG GACCGTGGAT GTTACCGATA CCAGCTGCCA	600
AGAAGTCGAT ACCAGTTTCA ACCATTGCTT TAGCGTCTTC GATTGGAGCC AATTCACCTT	660
TACCGATGAT TCCATCTTCT TCACCACCGA TAGTACCAAC TTCAGCTTCT ACTGAGATAC	720
CTTTAGCGTG TGCTTTTTC ACAACTTCTT TAGCCAATTT AAGGTTTCT TCAACTGGAA	780
GGTGTGAACC GTCAAACATG ATTGAAGTAT AACCAACTTC GATACACTCA AGTGCATCTT	840
CGTAGTGACC GTGGTCAAGG TGGATAGCTA CTGGTACAGT GATACCCATT GATTCAACAA	900
GGTTAGCGAT CAAGTTGCGA GCAACTTTGT AACCACCCAT GTATTTAGCA GCACCCATTG	960
AAGTTTGGAT CAAAAGTGA GCTTTTTCG CTCTGCTGC GCGCAAGATA GCTTGAGTCC	1020
ACTCAAGGTT GTTGTGTTA AATCCACCAA CTGCATAACC GTTGTCACGG GCTGCTTGGG	1080
CAAAATTTTC TGCTGAAACG ATTGCCATTT TATCAGGCCCT CCTGTATATT TTTATGGGTC	1140
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TTTCGATTGA TTTCTTCTA ACTCCATCTA TGTAAACCCT TTCTCTCCCT AGTCTTGGAC	1260
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TAATTTTTC TGTCTAATA GACTCTTAAC CACAAAGAGC CCCATACCAG ACCCCTTGAC	1380
CTTGCGACTG GCATTGTCAG AAAAAGACTG GGCTAGTTTT TCTTGTTCTT CTGAGCTACA	1440
GCTATTTTCG ATAAAAAGTT CTCCTTCTCT TTCTCCAATT CGAACTAAGC CACCTGGAAC	1500
AGAGTGCTTA ATGGCATGCG TGATGAGATT AGAAAGAATC AACTTCATAA CTGATGGGTT	1560
TAGATAAGCC TGCTGATGGG TCAAACTATT GTCTATCTGG AGCTCTCTTT CCTTGGCTAG	1620
CAAGGCATAA TCTTTGACCA GATTTTGCCT CATCTGGAGG AGGTCAATTG TTTCCCTATC	1680
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ATCCACAATC CCCAAGGCAA CTCCCAGATA CTGGTCTCTA TCCTTATAAC GACCGATATT	1800
CTCTCTCATA TTTTCGATTA GGATTTTCAA ACTAGCCAGC GGTGTTTTCA ATTCATGAGA	1860
AGCTCCTCGT AGGAATTCGA CCTTCATCTT CTCCAGCTGG AGAATGGCTT CATTCCTTTC	1920

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ATGCAAGTCC GCAATAACAG TCAAGAGATG CTGGTAGAGG CTATTGATTT GTTCCTTGAG	1980
ATTACCTATC TCATCCTTAG AATCCACGCG CAATCGCACT TGGGAATCCA GGTCCATCAT	2040
CCGACGGGTC ACCCGCTTGA TTTCCAAAAT CGGTGCAACA ATAGTCCGAG CGTAGATGTA	2100
GGCCACCAAA AGGGAAATCA GAAAGGAGGC CAGCAAGGTA TAGGGAAGAA ACTGGAGACT	2160
GATTTGCTCC GCTTCCTTTT GTAAATCCAT GGAAGCTAGA AACTGGAGAA TCATAGTACC	2220
ACCGTCTTGC GTTTTCACCT CGCGCTCCTC AATAAAGAGA GAGGTGTCTT GGCGGTCTGT	2280
GTCCAGAGGA AGACTGTCTT TGACTTCTAA CTTGTCTCTG GTCATCTCAC CTTTGACGGT	2340
CCCCTTGATA TCACTAGTCT GGGAAATACAA GTCTAACACT TGCTCGATAC TCTGCCTATC	2400
TTCCCTTCTT AGGGAAGTGG CAATGGCTGT TGCCTTTTGA CCAATGGTTT CCTGACGATG	2460
ACTCAGATAA GTCGAAGGAA AAAGAAAATA AATAGCTAAA TGAAGGCAGA TAACCAGAAC	2520
ACTAAATATC GAGAAGGTAT AGATAAATAT CTTTGCAAAAT AAACCTGTTT GTTTCATTTT	2580
CGCTCCAATT TATAACCAAC ATTGCGCACA GTGAGGATAC AATCCAAGTC TAGCTTTTTC	2640
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CTGACCCCTT CACGGATCAT CTCTTCATCT TCTACAATTA AAATTTTCAT ACTTTAACTG	3240
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GCTGGCCTTT TGTCTGCAAG CAACTGACCA CTAGATAAAA CGTTGTGAAA TTCCTTTCTC	3360
ATAAATTCCA TAACTTTAGT ATATTATATT TAAGCACTAA AGTACAAAGA AAGCAACTGA	3420
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TCCACTATTC TTGAATAGAA ACACAAGATG CAATCTTTAT TCTAGACTCA TTTTTCAAA	3540
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AACCTTGACC ATTTGCGATA GCATCCAAGT CACGGATTTC ATCCAATTTT TCAACTGCAA	17580
AGGCAAAGTG GTTCAAGAGT GCTGGTTCAA ATTCTTCATT AGCAGTTGTA AATGGCACAT	17640
GAAGAAGTGA GCAAGAGCTT GTCAAAACGA TGTTTTCAGC TGAATTTGC TCAAGAACAG	17700
CCAAGCTCTT TTCGTAGTTG TTGCGCCAGA TGTTTTTACC ATTGACAATA CCTACATAGA	17760
GAGTCTTGTC AGCTGGGAAG CCACCTTTAA CGAGTTCAAG AGTTTTCTTA CCTTCAACAA	17820

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AGTCAAGACC GATAGCATCT ACTGGTAAGT TTACAAGGTC AGCGTATACG TCACGAACAT	17880
CACCGAAATA AGTTTGAAGC AAGACTTCAA GACCTTTTTT GTCAGCCAAG AGTTTGTTGT	17940
AAAGGTTCAA GAAGAGAGCT TTTTCTTCAG CTGTCAAGTC TTTTACAAGA GCCGCTTCAT	18000
CCAATTGGAT GCGAGTCGCA CCAAGTTCAG CCAATTAGC AAAAATTCT TGGTAAGCAG	18060
CCACTAAGCT ATCTACGAAG TCGTCTGCTT TCACGCCTTC TTCAAAGTCT GACAATTGAA	18120
GGAAAGTGAA GGGACCTACA AGAACAGGAC GAGTGTTCAA TCCAAGTCTT TTGGCTTCTT	18180
GGAACTCATC GAAAATCTTG TGACCAGCCA ATTTTACTTG AGTGTCTTTT TCAAATTTAG	18240
GAACGATGTA GTGGTAGTTA GTGTTGAACC ATTTCTTCAT TCGAAGGGCG CGAACGTCCC	18300
CTTTTCTCC CTGGTAACCA CGTCCCAAAG CGAAGTAGCG CTCAAGGTCA GACAAGTCCA	18360
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GTTTAGCAGC CAAGTCTTTT GCTGCTGCTA AAAGTTCTTC TTCTGAGATT TCTTTCTAA	18540
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TTGTAGTTGA CATGATGTGT CCTCCAAAAT TTGTTGTTGA AACTATCTTA ACAGAAAAGA	18660
AAGCGTCTGT ATAATGTAA AAAATTAGGG TTTGATATAG TTTGAACTA TATATCTGTT	18720
TCGGACAAAA GAAAAAGACT TGAAGCAAAC GTCTCAAATC CTTTGTAATT CTTACTTTAC	18780
AGCTATATTC CAATTAGAAT ACTAAAACAT GTTATTAGTA ATTCTTATAA GTGACTATGA	18840
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GATTGCTAGT GTCTTTCCTA AACTGGCTAG GACTTTTAAG ACTGTATCCA ACTGAGGACT	18960
AGTCTTTCCT GTCTCCATCC TAGCTATGAC AGGCTGGCTT ATTCCACTGA CTTCCTCCAG	19020
CTTTTCTGA CTGATTCCTT GTTCATACCT AGCCTCAATC AACTCGCTCA TGATAGCCAC	19080
TCGCATATCA CTTTCAAGGA TTTCCCTCCTT GCTAAAGAGC TCAGATGGAC ATCCTTCCAA	19140
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GCCTATTTCT TAAGCGATTT TCCTTTTCTA GGATAAAGCA GTTCCTGCTT GCTTAACCCC	19320
AATTTTCCAC GATGAATCCA ATAGTAAATG GTTGAAATC CCACGTTAAC CCCTTTAGCC	19380
ATCACCATCA TTTCAGGCGA AAAATTTTGG TTATGTTTTT GGTATGTAT AGTGGAGAAT	19440
CTTTTCCTTT AGTTTCTTAA GACTGTTGAG CGTAGTCGGC AGAATAAATC TCTTTGAAGC	19500
GCCCTTTTCC AAGACATTGT CGGACTGTCC CACGCTTGAT TTCAGTGTGG ATAGTTTGAG	19560
GAGCTTTTCC AAGTAGAGAG GCAATTTCTC TATTTGATTT TCCTTCTTTT TTCCATCGTT	19620

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CGATTAAGCG ACGGCTATCG ATTGTCAAAT GTTTCCTTT TGTAGTATAA TTGTCTTGCA	19680
TTTCTGTGCC TTTTAATCAT TTCAATCTTA AATTGGACTT TTTTACTTG GGTGTACTT	19740
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CTTTCGGTCA TTCTCTTTT TATCCCTATC ATAACCTATT CTTTTTCCC ATCTTCTAAT	19920
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ACTTGGAACG TCGCTAATCA AATAGAAGCA CAACATATTG AGCGAATTTT TAGCCATTTT	20220
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CTGGCCAAG GAAACCAAGA ACTTGGTCAC CGAGTGAAT CACGGCTGTA CGACCTGGAT	21360

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GGGCTTCAAG GATTCCCTTA GCATAGAAGA AATCAACTGG AACTGCTGCT GTTTGGAAAT	21480
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CTGTGAACTC AACTGCTTTT TCAGGAGTTG TCAGAGCATA GGTGATGATT TCTGTCAAAC	21780
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CCTCACCTGG CACGGCATCT TCAGGCAAGA TTTGGATGCC ATCTGCGAAT TCCTTAGGCA	22920
CAACTGAGTC AGAAATCCC AATTCAACAA GTGAACAGAT CATTCCAAGT GACTCCAAAC	22980
CACGGATTTT TCCTTTTTTG ATTTTGTAGT TATCAGCGAT ACGAGCTCCT GGAAGAGCCA	23040
CCATGACCTT GATCCCAGCA CGCACATTTG GGGCACCACA AACGATCTGA CGCTCTTCTT	23100
CTTCGCCAAC GTTAATCTGA CAAACATGGA GGTGAGTCTC TGGCACATCT TCGCAAGACA	23160

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ATTCTTTTAA CCATTATATA GATACAAGCA TAATTTAGTT CTCCAGAAATG ACAGTTGTCA	23340
CTCTAGTTCT TTTCTTTCC TATCATTTCA ATAGAAGAAT CCTCTTCTTA CCTTAATTTT	23400
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GGTGACTGTG GGTGCGATCG TCCGTATCGC GACGGAAGAC ACGCCCTGGC GAGATCATCT	24360
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AAACGTGACG GTGACCAGTC GCAACTGGAC GACCTGGAAG CGTCACATCT ATACTCTCGC	24660
TAGCCAGTTG AGCCCGGACT TTCTTTTCTT CCAAGAGCTT AGCTGTTTCT TCAAAGCAG	24720
CAGTCAAGAC ATCAGAGCT TCATTGACGT GTTTCCCGAT GATTGGACGC ATCTCAGCAG	24780
AAACATCTTT CATCCCTTTG AGGATTTTCA TGAGCGAACC CTTTTTACCA AGGACAGAGA	24840
CACGCAAATC TTGCATCTCT TTTTCATTTT CAGCAGTAAT CTGCTTCAAG CTAGCCAGCG	24900

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TTTCTTCGCG AAGCGCTTTT AATTGTTCTT CAATAGTTGA CATATTTCTT CCATCAGTCT	24960
CTCGTAGATA AAAAGAAAAC CACATGCCAA AAATCCACT CGGAGCGTTG ACACGCGGTA	25020
CCATCCGTTT TCATCTGACA AGTCAGACCT TCATTCTTAA ATCCATGCGC AAGTGAATTC	25080
ACCCAGCTTT CATATAGAGA GCTGTCAGTC ACGGCTCTCC TCCCTGATAT ACTTCCCTTG	25140
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CTTGCAAGAC CTATCTTACT TCTGCTTGTT AGCTTATTCT TATCTAAATT TATATAAACc	25260
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ACATCCCACC TTAAACTCTG AATTAATCTC ACGAGCAATT TTTGTAACCA AACTTGAGGC	26220
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ACTCCATGCA ATAGAAGTAC GAAAAACATT AAAGCCCAT TCAGAAAACA AGGATATATC	26640
TTCTTTATAT TTATGATAAA AATCAATACC TATCAATTTT AAGTTATCTT CTGTAGGATT	26700

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TTCTGTGCT	TCTCCTAATC	CACCTTTGGG	TAACACATCC	TGAACTGATA	AGCCCTTACC	26760
ATCTTCATTA	TATGCTCCCT	CTACTTGATT	AGCTGCAACA	GCTCCACCCC	AAAGAAAATC	26820
ATCTGGAAAA	ATGGTCATAA	CTTTCCTCCA	TTATAATATT	ACCAGTAATT	CCTTAGAATG	26880
CTCGATTGTC	TGATTATTAG	GTAATACTAA	TACATCTAGA	AAATCATTGG	TATTCGTTAC	26940
AATTACTGGT	GTAACGTGTT	CGTAGCCTTT	AGTCTTGATT	AAATTCAGT	CCATTTCAAA	27000
AATCAACTGA	TTTTTGAAAA	CTCTGTCTCC	TTCTTCTACA	TGACTAATAA	AACCTTGACC	27060
TTTTAGCTCA	ACAGTATCTA	ATCCAATATG	AATTAGTAAC	TCAACACCCT	CATCACTCTT	27120
CAATCCAATT	CGGTGCTTAG	TCGGAAAAAT	ATTTGTAATT	TTCCCATCAA	ATGGTGATA	27180
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TTTATTTGAA	ACTCCAGCTT	CAACTTCTAA	ATTGCTAGAA	CTCTCTTCTT	CATCGATTCC	27360
AAATATATAA	GCTAATACAA	AGGTAATAAC	AACCGAAATG	ACCGCCACAA	TTAAAGCATT	27420
TACAATATTT	GATGGCACAT	CAGAATAAAT	AAATPGAGGC	AACGCTATCA	AAGATGGGAC	27480
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AATCATAGCT	GCATAAAGCG	GTTTTTTATA	TTTTAAAGTC	ACACCATATA	ATGCAGGTTT	27600
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CATTGCTGGA	AGAATTAATA	CGTCTGGAGT	AGCAATAGAT	GCCGCCAAAA	AAATAGGTGC	27780
AAAAGCCCAA	TGCATTCCAG	TCATAACAAT	AAATGGCATA	ATAGCACCAA	GAATAGCTAA	27840
TGTAAGCCAT	CCAGCTACAC	CATACATTTG	CCCAACTAGA	TTTGATAATC	CTTACCAAC	27900
AATTACTCCA	ATAGGTCCGA	CTACAATAA	GGCAATACAG	CTTGATACTA	ATAATACTAG	27960
CGTAGGTTGC	AAAAAACTCT	TAGTAATAGC	TAGTGTTAAT	TTAGCAATTA	TTTTTTCAAT	28020
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CAAAAAAGCA	ATAGTCTGAG	AATCTGATTG	CAATATACCA	AGCATTGGTA	AAATGATTAC	28320
CAAGACTTTC	AACATACCTC	CCCCTAACAT	TGCTGGAATG	ATTGGAGTCA	TGGAACCAGC	28380
GATATACTCA	ATGATTCTTT	CTAAAATATT	CCCTTTGTGC	CCTTGAACAA	CTGAATCGGA	28440

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TTCAAAATTG CCAAGTTTAA CGAATTCCTT ATAATAATTA GCTACATCAT TACCAAGTAT	28500
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ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AACGTGTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
ATAACTCATG GTATTCTCCT ATTCTATTAA TCTAAATTTT TTGTTAAGCG ACGAATATGA	28740
GCCATCAAAT AACTAATTC ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTACCACA TTCATATTCT CTAGGATATT TATTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

GCCTATGCT TTTTCAAAA AATGCTTGAC TTGAGACGGG AACTAGGGAA GTCTAAAGGC	60
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ATGTCTTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTGG ATGACTTATT	360
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CTTTGCAAGT TGCAAGTATC CCTGTGTTGA TATATTAGT GACTGTGCTG ATAATTGCAA	660
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GGAATGTGAC TCGTTGCGCA ATCACCTATT TGATGTTTCT TTGGCTTGGT TCTATGCTGC	900
TTTATAGTGC CTTGCCTTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

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TGCTTGAAAA ATATGAAGAT AATGTTTAAG AATTTTAACA ATATTTTGCT AAATAGAAAG	1080
ATTGTTTTAC TACTTCGTAT AGTTCTGATG ATGATTTTGA TAAACCATCT ATTGTCAACA	1140
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TCTGGCAAGA CGGTTCTTTT AAAGATACTT GCTGGTTATA TTAAGCTTGA CAAAGGAAAA	1860
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TTAATTGAAA AAGTCGAGTT TTTATCTCAT TTATCCCTGA GAGAAAATTT GGAAGTGTTA	1980
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GATGTATTAG TTGTCGAAAA TGGACATATA CAAATGTAAA GGATATACAA TCCTAGGAGA	2340
TGGCTTATGG CACATCTAAA ATCATTATT ACACGATATT CCAAGGTTTA TATTGGTTTA	2400
GTTCTGCTGA TCTGGCTGTC TTTCTTCTTT ATCCCTTGGG ATAAACCACT TCTGGGGATA	2460
AGGATTGACA TCTTCATCAT ACAGAAAATC TTGCTAGCTT TTGGAATTCT GTCCATTCTC	2520
ATGGCCTTGC TGCCAAGAA AGTCAGTCTC TTTGTTTTTG GACTGATTTG CTGCTTTTCT	2580
CTTTGGATTA ACTTATTTAT CACATTTGCC ATTTTGCCGA TTTTGGCAA TTAAACAGTC	2640
ATAAAAGTCG GAGAGGTTAG CTTGAAAAC AACCTCTTTT TCCTTTTCAA AATGGGGATT	2700

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CTTCCTTGAA AATAATCAGT AATTGTGCTA AAATTAAAGG AACATTCTAA AATATTCGGA	2760
ATTTAAAGTA AGGAAAAACA TGGCTAATAT TTTAAAAACA ATTATCGAAA ATGATAAAGG	2820
AGAAATCCGT CGTCTGGAAA AGATGGCTGA CAAGGTTTTC AAATACGAAG ACCAAATGGC	2880
TGCTTTGACT GACGACCAAC TAAAAGCAAA AACAGTTGAA TTTAAGGAAC GTTATCAAAA	2940
TGGAGAATCA CTGGATTTCAT TGCTTTACGA AGCATTTCGG GTTGCCGTG AAGGTGCCAA	3000
ACGTGTCCTA GGTCTCTTCC CTTATAAGGT TCAGGTCATG GGGGGGATTG TTCTTCACCA	3060
TGGTGACGTG CCAGAGATGC GTACAGGGGA AGGGAAAACC TTGACTGCGA CCATGCCGGT	3120
ATACCTCAAT GCCCTTTTTCAG GTAAAGGGGT TCACGTAGTT ACGGTTAATG AATACCTGTC	3180
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AAACATGGTA CAACGTCCGC TTAACATATG CTTGTCGAT GAGGTTGACT CTATCTTGAT	3420
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ACTTGAAAAC CTCTATGACA TCGAAAACGT GGCTTTGACT CACTTTATCG ATAACGCCCT	3660
TCGTGCCAAC TACATCATGC TTCTCGATAT TGAATATGTG GTGAGCGAAG AGCAAGAAAT	3720
CTTGATTGTC GACCAATTTA CAGGTCGTAC CATGGAAGGT CGTCGTTATT CTGATGGATT	3780
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AACAAACCGT CCTGTTCAAC GTATTGACCA CTCAGACCTT CTTTATGCAA GTATCGAATC	4020
TAAGTTTAAA GCGGTTGTCG AAGACGTTAA GGCTCGTTAC CAAAAGGGTC AACCTGTCTT	4080
GGTTGGTACA GTAGCGGTTG AAAGTAGTGA CTACATTTCT AAGAAATTGG TTGCAGCTGG	4140
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TGCTGGTCAA CGTGGTGCCG TTACCATCGC AACCAACATG GCGGGTCGTG GTACCGACAT	4260
CAAGCTTGGT GAAGGTGTTT GTGAACCTGG AGGACTTTGT GTTATTGGTA CAGAACGTCA	4320
TGAAAGTCGT CGTATCGATA ACCAGCTTCG TGGACGTTCA GGTCTGCAAG GAGATCCAGG	4380
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GTCAGGCTTG TCTGATAAGG CCAATCAAGGA AGAGCTTTTC CAACGTTCTT TGAAGGTTTA	4860
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GATGAAAGCA CAAATTCATG AACAAGAAAG ACCACAGGCA GAACGTCATA TCAGTACAAC	5160
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GATTGGACGC AATGAACTTT GCCCATGTGG TTCTGGTAAG AAATTTAAAA ACTGTCACGG	5280
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GTAATCGGGC CATGCTCATC TGACAACGAA GAAGCTGTCC TTGAATACGC TAAGCGTTTG	5580
GCAGTCCTAC AAGAAGAAGT GGCAGATCGT ATCTTTATGG TTATGCGGT TTATACTGCC	5640
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GTCATGTTTA ATGGGATTTA TGCTGCTCAA AACAAACAAA GTTTCCTTTT CTTAGGAAAA	6000
GAAGTAGAAA CAACTGGGAA CCCGCTTCA CACGCTATTC TTCGTGGTGC TCTTAATGAG	6060
TATGGAAAAA ATATCCCAA CTACTATTAT GACAATTTAA TTGATACCAT TGCCCAGTAT	6120
GAGAAAAATG GCTTGAAAA TCCTTTTATC ATCATTGATA CCAATCATGA CAATCTGGT	6180
AAGCAGTATA TTGAACAGAT CCGAATTGTC CGCCAGACCT TGATTAACCG TGCTTGAAT	6240

960

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CTTGAGACTC AAGGAAAGCC GTGACAGGGA ATTGGCAGAT ATTATTTTCAG GGGAAAGATGA	6540
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TGCTCGCCGT TTATCTGCCT TGCAAAAGAA GGTAGCGGAT AAGATTTTCA TGGTCATGCG	6660
CGTGATACT GCTAAGCCTC GTACCAATGG AGACGGCTAT AAAGGATTAG TTCACCAGCC	6720
AGATACTTCT AAGGCTCCAA GCCTGATTAA TGGCTTGCGAG GCTGTGCGCC AGTTGCACTA	6780
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GATCTTGGTG GATGACTTGG TCAGCTACCA TGCCGTTGGA GCTCGTTCTG TGGAAAGCCA	6900
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AGGAAATTTG GGTGTTATGT TTAACGCCAT CTATGCTGCT CAAAACAAGC AAACCTTCCT	7020
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AGCAGTCAAC GAGTATGGCA ATTATATGCC GAATTACTAC TATGAAAATC TACTCCAAGC	7140
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CCCTCAAGGA ACGCTCAAGT TGGCTGTGGT TAAGGCCAAT GCTTATGGTC ATGGAGCTGT	7980
TGCCGTTGCC AAGGCAATTC AAGATGATGT TGATGGCTTT TGCGTTTCCA ATATCGATGA	8040

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AGCCATTGAA CTCAGACAAG CTGGACTCAG CAAGCCAATC CTCATTTTAG GAGTTTCTGA	8100
AATCGAAGCT GTTGCTCTAG CTAAAGAATA TGACTTCACC TTGACAGTGG CTGGACTGGA	8160
GTGGATTCAA GCACTCTTAG ATAAGGAAGT GGACCTAACT GGATTGACAG TCCACCTCAA	8220
GATTGATTCA GGGATGGGAC GGATTGGTTT TAGAGAGGCA AGTGAGGTTG AGCAGGCTCA	8280
AGATTTGCTC CAACAACACG GTGTTTGTGT TGAAGGAATC TTTACCCACT TTGCTACTGC	8340
TGATGAGGAA TCAGATGACT ATTTTAATGC CCAGTTAGAA CGGTTTAAAA CTATTTTAGC	8400
TAGTATGAAG GAAGTCCAG AGCTGGTTCA TGCTAGCAAT TCTGCAACGA CTCTTTGGCA	8460
TGTAGAGACT ATTTTCAATG CGGTTTCGTAT GGGAGATGCC ATGTATGGCC TCAATCCAAG	8520
TGGAGCGGTC TTGGATTGTC CTTATGATTT GATACCGGCC TTGACCTTGG AGTCTGCTCT	8580
GGTTTATGTC AAGACAGTTC CAGCTGGAGC TTGCATGGGC TATGGAGCAA CTTATCAAGC	8640
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CATGCAAAAT TTCTCTGTCT TGGTAGATGG CCAAGCTTGC CCAATTGTCT GCAGGGTTTC	8760
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GATTGGCTCC AATGGGATA AGGAAATCAC TGCAACTCAG GTAGCGACCT ACCGCGTAAC	8880
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CCTCCAGCCT GTCTATCGTC TGGCTCAGG AATCAGTCAG GCCAGTCTGG TCAAGGTCAT	9420
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ACTAGACAAA TACAAACTCA TGTCCCCTTG TCAGGCAGTC CGTGCTATGC ATTTTCCAAA	9540
GTATTTGGCA GAATACAAGC AGGCTCTTCG CCGTATAAAG TTTGAGGAAC TCTTTTATTT	9600
CCAAATGCAG CTGCAGATGC TCAAGTCTGA AAATAGAGTT CAGGGAAGTG GTCTGGTTCT	9660
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AGCTCAGGAA AAGAGTTTGC AGGAAATTTT AACTGATATG AAGTCCGACC ACCACATGAA	9780

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TCGTCTCCTA	CAAGGGGATG	TGGGGAGTGG	AAAAACGGTA	GTGCGTGGCT	TGGCCATGTT	9840
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GCAACACTTT	GAGAGTTTAC	AGAACCTTTT	TCCCAATTTG	AAACTGGCTC	TCTTGACAGG	9960
TTCTTGAAA	GCTGCAGAAA	AGAGAGAAGT	CTTGAGAGCC	ATTGCCAAGG	GTGAGGCTGA	10020
TTTGATTATA	GAACTCAGC	CTCTGATACA	AGATGGGGTG	GAGTATGCTC	GTCTTGGTTT	10080
GATTATTATC	GATGAGCAGC	ACCGTTTTGG	TGTAGGGCAA	AGGCGTATTT	TACGGGAAAA	10140
AGGTGACAAT	CCAGATGTCC	TCATGATGAC	GGCGACTCCC	ATTCCACGGA	CGCTTGCCAT	10200
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TATTGTGACG	CGCTGGATCA	AACATGAGCA	ACTACCTCAG	GTCTTGACTT	GGTTAGAGGG	10320
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GGCAGAGGTG	GCTCTTCTAC	ATGGTAGGAT	GAAGAGTGAC	GAAAAAGACC	AGATCATGCA	10500
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CAACGTTCCC	AATGCGACTG	TCATGATTAT	CATGGATGCC	GATCGCTTCG	GTCTCAGTCA	10620
ACTTCACCAG	CTTAGAGGTC	GTGTCGGTCG	GGGGACAAG	CAGTCTTACG	CTGTTCTCGT	10680
TGCTAATCCC	AAGACGGATT	CTGGGAAAGA	CCGCATGCGT	ATCATGACAG	AAACGACCAA	10740
TGGATTGTGC	CTTGCGGAGG	AAGATTTGAA	AATGCGTGGT	TCTGGTGAGA	TTTTTGGAAC	10800
CAGACAGTCA	GGACTTCCAG	AGTTCCAAGT	GGCTGATATT	ATCGAAGATT	TTCCGATTTT	10860
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AGAGTGGCGC	ATGATTGCCC	TTCATCTGGA	AAAGAAAGAA	CATCTGGATT	AAGCTTTCTC	10980
TAAGGAAAAC	TTATACTCAA	TGAAAATCAA	AGAGCAAAC	AGGAAGCTAA	CCGCAGGTTG	11040
CTCAAACAC	TGTTTTGAGG	TTGTGGATGA	AACTGACGAA	GTCAGCTCAA	AACACCGTTT	11100
TGAGGTGGCA	GATAGAACTG	ACGAAGTCAG	TAACATATAT	ATACGGTAAG	GCGACGCTGA	11160
CGTGGTTTGA	AGAGATTTTC	GAAGAGTATT	AAGCTAGTTT	TTAGGTTTGG	CTCTTATACT	11220
AGAGTCATCA	AAAAGAAACG	AGGACTCTCA	TATGACAGTA	ACGATTAAAG	TAAATTACCA	11280
AACCACTTTC	CAAAAGAAGG	AAGCAAAAAA	CTAGTATAAA	CAGAAGAGAG	AGCGAAATGC	11340
TCTTTTTTCG	TTTCTAAAAC	TACTTTCAGC	CCATCATCCT	AAAAGTAAAG	AATCTAAATT	11400
CACCTTCTAT	TTACCCCTCT	TTCTTGCAAT	GATTACATAG	ATATGCTACA	GTTGTGGTAA	11460
CGATTACAAA	ATAAAAGGAG	CATGCTATGA	AAAATCCAGC	TTTGCTAGAA	GAAATTAAGA	11520
CCTATAGAGG	AAGGGATGAG	GTTCCGGAAG	ACTTTGATGA	TTTCTGGGAT	GGGGAAGTGA	11580

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AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCCAC ATTCCTCAAG	11640
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TTCTTCCAAA GAGTGAGGAG AAGGTCCCAT TAATCTTCCA TTTTCATGGT TATATGGGAC	11760
GTGGCTGGGA CTGGGCCGAC ATGCTGGGCT TCACCGTAGC TGGTTACGGT GTTGTTCCTA	11820
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CCGTGAAGGG GCATATTATC CGTGTGCTG TGAAGGTCG GGACCACCTC TTTTATAAGG	11940
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ACAACATGGCT CTGTGGAAGT GAGATTCCTT TTAATATCT AAAATAAGGA GTCGACTCTA	12480
AGCACAAAAT CTTAAAAATT ACAAACACGC ATAGTATCAG GGGATTAAGA AAACCTTATA	12540
CTATGCGTTT TATCATGGA ATATAGTAAA ATGAAATAAG AACAGGACAA ATCGATCAGG	12600
ACAGTCAAAT CGATTCTAA CAATGTTTAA GAAACAAATG TGTACTATTC TAGTGCAAT	12660
CTATTATATT TATAGAATTT TTTGTTGCTA GATTTGTCAA ATTGCTTAAA ATAATTTTTT	12720
TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC	12780
TGTAGGTGTT AATACTTTTC AAAAATCTCT TCAAACCACG TCAGCTTCGC CTTGC	12835

(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5020 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC	60
ATTTACACAA GCCCCTTGTT AGCCTTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT	120

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ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTTGGTTATT CTTAACACTG TGTTCAGATG	300
GACAAGAAAA GTTGAGAAAA GACCTATTCG AACCTTGGGA TTTTATAGAG AGAATTTCCT	360
CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
TTTAGTGGTC TTAGGTCAAT ATCGTTTGA ATCCATTCAC TTGAATCCTT ATTCTCTTGC	480
CTTTGTCTGC TTTACTATCC CATTTTGGAT TTTACAGGG ACAGCAGAAG AAGTGGTGGC	540
CCGTGCTTGG CTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCTTAT	600
ATCTAGCCTG TTCTTTACCC TGCTTCATAT GGGCAATTCT GGTCTCACCC CTCTATCTCT	660
AGTAAATCTC TTTTATTCG GAGTTGCCAT GGCTCTTTAC CTTCTCAAAA CTGATACAGT	720
TTGGGGTGTT GCAGGTATTC ATGGTGCTTG GAATTTTGCT CAGGGTAATC TCTTTGGGAT	780
TTTAGTTAGT GGTCAACCGT CAGAACGTCT CTGATGACCT TTTTACCACA AGGCAATCAA	840
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CGGTCCGTCC TTTTCTTCGT GAAAATACTA TAAGTATGCT AAAATAGGAA TAGCACATGG	1020
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TCAACCATCA GGAGATCAAC CCCAAGCTAT CGAGCAGTTG GTGGATAACA TTGAGGGGGG	1140
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GGTCATTTCT AAAGTCAATA AACCAACTCT GGTATTGACC CACAATAAAA CTCTGGCTGG	1260
TCAGCTCTAT GGGGAGTTTA AGGAATTTT CCCTGAAAAT GCAGTTGAGT ATTTCGTATC	1320
CTACTATGAT TATTACCAGC CAGAGGCCTA TGTCCTTCT AGCGATACCT ATATTGAGAA	1380
GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATG TCGTGGCCTC AGTCTCTTGT ATCTATGGTT TGGGTTCCGC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTTGAAT GACTTGGTCG ATATTTCAGTT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTGCG GTTCGTGGGG ATGTGGTAGA GATTTTCCCA GCTTCCCAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTTTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATTT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTGAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAAACTGCT TGAAGCCCAG CGTTTGAAC AGCGGACAGA	1920

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GTATGATATC GAAATGTTGC GTGAGATGGG CTATACCAAT GGGGTTGAAA ATTATTCTCG	1980
CCACATGGAT GGACGGAGCG AAGGAGAGCC TCCTTATACG CTTCTCGACT TCTTCCCAGA	2040
TGATTCTTGT ATTATGATTG ACGAGAGTCA TATGACCATA GGGCAAATCA AGGGCATGTA	2100
CAATGGAGAC CGTTCGCGTA AAGAAATGCT GGTTAATTAT GGTTCCTGTT TGCCGCTCTGC	2160
TTTGGACAAT CGTCTCTCTCC GTCGGGAGGA GTTTGAGAGT CACGTTTCATC AGATTGTTTA	2220
CGTTTCAGCG ACACCTGGTG ACTATGAAAA TGAACAGACC GAGACAGTGA TTGAGCAAAT	2280
CATTCTGCTCA ACGGGACTCT TGGATCCAGA GGTGGAAGTC CGTCCGACTA TGGGACAGAT	2340
TGATGACCTC TTGGGTGAAA TCAATGCCCG CGTTGAAAAA AATGAGCGTA CCTTTATCAC	2400
AACTTTGACC AAGAAAATGG CAGAGGATTT GACCGACTAC TTCAAGGAAA TGGGTATCAA	2460
GGTCAAGTAC ATGCACTCGG ATATCAAGAC CTTGGAACGG ACGGAGATTA TCCGTGACCT	2520
GGCGTTGGGT GTCTTTGATG TCTTGGTCGG AATTAACCTG CTCCGTGAAG GAATTGACGT	2580
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TGATGCTCCC TATTATGATG ATTATCAGTA TTTTCAAAT TTAAAGAAT TCGAACTACA	3180
AAAATCAGAA TCCATTTTAA GCAACTCAAA TCGCCTTGGT ATTTTGTGTT ATGATAAACT	3240
AGTTGGGACT GTTTCGCGTT ATTGGGTATG TAAAGAAACA AGATGGATGG AATTGGGAAT	3300
TGGTATTTAT GATAAAAAAT TCTGGAACAC TGGTATTGGG AAAGTTGCTA TGTGTCAGTG	3360
GATAGATAGG ACGTTTCAGG ATTACTTGGA GTTGGAGCAT CTGGGTTTGA CAACTTGGTC	3420
AGGAAATATT GGTATGATGA AACTTGCTGA AAAATTAAGA ATGAAAAAAG AAGCTCATAT	3480
TCCAAAAGTT CGTTATTATC AAGGTAAATA TTTTGACAGT ATTAAATATG GTATTTTGAG	3540
AGAAGACTGG GAGAAAATAA ATGACGGTTA TTATCAAATC AATGGAACT CCTGAAGAGA	3600
TAGAAGGTAA ATCCTTCGTT CACTGGCAAA CGTGGAGAGA GGCTTATGAT GACCTTTTGC	3660

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CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTAAAAGACT	3840
ATTATGGAAA AGGAATCGCA CAAAAGTTAG TGAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAT TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCCTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCTTGAA AACAACTGCT GGTCTGGTTA TGCCTTTCTT GGAGGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCTGTA AATCTACGAA GAAACAGGGT TGACTATCCA	4320
AAATCCTCAA CTTGTGCGCA TTAAAAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTTGTTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAGACC AGATTCCAAA CTTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGAAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGTCTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTCTAGAA AATGTTGCAC	4740
GTGCGGGCGA CAGGTCAGTT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTTC	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATTGCAAT	4980
ATCTTGAACA ATAACCTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTAGAGA ATTATCGTCT CGCCCTTGAA	60
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GAAGAAGGTC GTGTAGTACT TGAGTTACTG CTATCGCTAG AACTACTACT TGAAGTCTG	120
GAGCTGGATG GAGTTGGTAG ACTCCCCACA ATACTAGACC AAGCATTCTG ATAATCCGCA	180
TCAC TTCGC CAATAGCAAA GCGATAACTT GTCGCTGGCG CTCCTGACTT ATTAGCCCAA	240
TAGCTGGTAA CAGTCGAACC TGTGACCTCT ACTTCTTTTC CTTCAACAGA AACCTTCTCT	300
GGTTTTTGAC CTGTTGATTT CAAGACTTCC GATTTCACTA CACTAGGATC TAAAGCAAAG	360
CGCTCGTTCC CCCAAATGCT TGGGGAAGCT TGCTGAATCG CATTTACCAG ATGAGCCATG	420
TAATTAGAGT TATTAGAATA ACCTGCTCTA CGTGACAATG AATGATTATC ATCATGCCCA	480
ATCCAGCCAC CTAGGGTTAA TCTAGGTGTC GAAAGCATGA GCCACATATT TTCGTCTTGG	540
TTGGTTGTAC CAGTCTTCCC AATCCAATCT GCATTAGCCA GAGTAGGATT TAAAGAAGTC	600
AGGTTAGACT TGAAGGTTGT TGTCACACGA GAGGATAGAA CTTCTCGTAG CAATCCCTGC	660
ATAATCGTCG CAGTAGCTTT TGAATAGACT TGAACCGGTT TATCCTGATA CTCATACACC	720
ACTCTACCAT CTGTGCTTC AATCTTTGAA ATCACATGCT TCTGATGATA AACTCCATTA	780
TTAGCTAAGG TCTGATAGCC ATTGGTATGC TGGGCAACTG TGACTTCAAT ACCACCACCC	840
ATTGGCAAGC TCTCAATACC GTACTCAGGA ATCTCGTAAC CCATCTTTTC CATATAACCC	900
TTGACATCAA CACCCTTTTC ACGGAGCATA CGATAGGTCC AGTAAGCAGG GATATTCCAT	960
GAATAGTTCA GAGCTTCTCC CAAGGTCATC ATTCCTGTTT CCTTGCTATT AGCATACATA	1020
ATCGGATTGC CATTAGCAAA GTTTGTTGGA TAGTTAGATA GAATCGTTTC ACTTCCCATC	1080
AAGCCCTGGT CAATAGCAAT ACCGTAGGCC AGCAAGGGCT TGGTAGTAGA AGCTGGCGAA	1140
CGTTTGGTAT CAAAGGCATG ATTATTTTGA TTTTCTTGAT AATTACGACC ACCTACAAAG	1200
CCTAGAATAG CACCTGTTTG GTTATCCATC AAGACATTCC CTACTTCTAC ACGACCTGTT	1260
CCATCGTCTA AAAGATAGCC ATAATCAGCA ACCGCACCTT GCATGGCAGA ATGAATTTTC	1320
TGATCTATGG TAGTAGTAAT CTTATAACCA CCATTTTCAA TTTCTTGGC TGCCAAATCT	1380
CGATAAAACT TCTGAGTTGC CTCATTTTTC AACTCCTTAG CGGAGACATT GTCTCTCTGA	1440
GCTAGATAGT CATACATACG TTCTTGAGCT TCTGCCAAAG TTGTAAAGTA TAAATAGTCT	1500
CGTGAAATTC CTGTAACCGT GCCCGATGGT AAAAAGTCCT GTTTAAGGTC ATAATCCTTG	1560
TACTGAGAAT ACTCGTCTTT GCTTAATGCA CCTGTACGAT ACATACTGTA AAGAAGTCCC	1620
TTAGCCCGTC TTAAGCCAAT TTCTAGGTCT TCATCACTCT TCAACTCCCC AGTATTTTCA	1680
TAAGGAGAGT AAGTAATGGG ACTCTGTGGA AGTCCTGCTA AAAATGCTGC TTGAGGAACA	1740
GTCAACTGAC TGGCATCTAC ACCGAAAATT CCCTCAGCTG CTTGCCGAGC CCCTGCAATA	1800

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TTCTGTCCCT TATTATTTTCGCCAAAGGGA GCCACATIGA GATAGGTCGT TAAAATCTCA	1860
TCTTTATTCA TGGCGCGTTC CAAGGCAAGA GCATCCACAA TCTCTGCCGC CTTACGAGCC	1920
AAGGTGCGCG CATCCCCAAC CACCTGCTGT TTAATTAGTT GCTGGGTCAA GGTGAACCC	1980
CCACTAGAGG AACCCAAACC TACAAATTTC CCCAAGGTCG CACGAATCAC CGCCTTGGGT	2040
ACTACACCCT TATGTTCTTT AAAGTGTTC TCTTCTGTCG CAATGATAGC CTTCTTCAGA	2100
TTTTCGAAA TTTGCTCAGA TGAGATAGAA GTGCGCAACA AATCACTCTC TATGGAAGCA	2160
ATCACCGTCC CGTCCGAATA GGTAACTCTT GAAATAGAAG AGATGTCCTT GACCTGATTC	2220
ACCAATTCTT CTGTCTGAGG CACCCGAACC TTGTCAAATA AGGCCACTCC GTATCCCAA	2280
GCAATCCCAG CTCCCAACAT TCCTCCTAGA AAACCGAGTA CAAAGAGTAA GTTAAATAAG	2340
GCTTTTATAC TCAGTAAAT AGCTGGGAAA ATGACTGACT TATCTAAGGT TTTAGATTTT	2400
TTGGTACTTG AACCTTTCTT GCCAGGTCTA GCTGATTTTT TATTTTTTTG TTTTGTCTGG	2460
AAAAATCCA GCATTTTTCG TTTTAATTCA TTTAATTGAT TTTGCATGGA TTTCTCACT	2520
TTATCTATTA TACCACAAA GGGAAATTTT CAATAAATA GCCACTTTCT TCCCTATTCT	2580
GCTAGGCTAT TGCCCAAGTT TGTGATACAA TAGGTAGAAA CAATAATTTT AAAAAGGAGA	2640
AAAAACACAT GCACATTTT GATGAGCTAA AAGAGCGTGG TTTGATATTT CAAACGACTG	2700
ATGAAGAAGC TTTGCGTAAA GCCCTAGAAG AAGGTCAAGT TTCTTATTAT ACTGGCTACG	2760
ATCCAACTGC TGACAGCCTT CACCTAGGCC ACCTTGTCGC AATCTTGACA AGTCGTCGCT	2820
TGCAACTAGC AGGTACAAA CCTTATGCGC TCGTTGGCGG TGCTACAGGT CTCATCGGAG	2880
ATCCGTCCTT CAAAGATGCT GAACGTAGTC TCCAAACAAA AGACACAGTA GATGGCTGGG	2940
TCAAGTCTAT CCAAGACAA CTTTCTCGTT TTCTTGACTT TGAAAATGGC GAAAACAAGG	3000
CTGTCAATGGT CAACAACTAC GACTGGTTTG GCAGCATCAG CTTCAATTGAC TTCCTCCGTG	3060
ATATTGAAA ATACTTCACG GTCAACTACA TGATGAGTAA GGAATCTGTT AAAAAACGGA	3120
TCGAAACAGG AATTTCTTAC ACTGAGTTCG CTTACCAAAT CATGCAAGGG TATGACTTCT	3180
TCGTCTTAA CCAAGACCAT AATGTCATC TTCAAATCGG TGGTTCTGAC CAGTGGGGAA	3240
ATATGACAGC TGGTACCGAA TTGCTTCGTC GTAAGGCGGA CAAGACTGGT CACGTTATCA	3300
CTGTTCCACT AATCACAGAT GCAACTGGTA AGAAATTTGG TAAATCAGAA GGAAATGCCG	3360
TCTGGCTCAA TCCCGAAAAG ACTTCTCCAT ACGAAATGTA CCAATTCTGG ATGAACGTGA	3420
TGGACGCTGA CGCTGTTGCG TTCTTGAAAA TCTTTACTTT CTTGTCATT GATGAGATTG	3480
AAGATATTCG TAAACAATTT GAAGCAGCGC CACACGAACG CTTGGCTCAA AAAGTCTTGG	3540
CTCGTGAAGT TGTTACACTT GTTCACGGAG AAGAAGCCTA CAAAGAAGCA CTTAACATCA	3600

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CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCTGT CAAAGAGCTC AAACAAGGAC	3660
TTCGTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAAGTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTACT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAACCTCT	3960
TTTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGGTTGT TAGATTATGT AAGATAGAGA GATTGAAGG ACTGAACCAA TTAAATAAGC	4080
CAAAGCCAAT CAAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAAC CTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACTCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTTCG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCTT AATCAAGGTG TCTCCTGTTG	4440
CCAGAATCAA TTTTTCCTCC TGTGCCTTAA GTTTATCCAA GGCTGTTTTT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTCAAT TTGATAAGCC AAGAATAAGA	4560
GATTGTAGTG ACTCTGTAC TCTTCAATTA AAGCATTTTG TTCTGAACGT ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATTCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCTT GCTTGCGATA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATCCCT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTCG TCTTATCAAA CAAGAAAGTA TCAACTTCCA	4920
GATATTTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3232 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:

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CAGGGGCGTA TTACGTGACA ATTCAATGTA GGCTGTCGCT ACTTGCGCCA AAACAAGGAT	60
TCGATAATGT CGGATGATAC TAACGATTAA ACCGAGCAGA AAGGATCCCA AAATTCCTCA	120
AACTGCAATA TGCAAGGTCA GAAAGAATGC CTTTGTATAT AGTGGTAGAT ATTGTTCAAC	180
AATGGATCAA TCCAAAAATA GAACCTCCCA TCTAGAAATA ATACAGTTAT TGTAGCACTT	240
AAAATCTTCT TTGGATAATA TCTATTTTTT ATTGCCGTTA TAAGGATTTT TATCATAGAC	300
ATAAAATTTT TGAATTTTCC AAACAAAAATA TTTTAAAAAGT TTTGAAAAAG AGTTAAGATA	360
TTTTTGTAAT ACACAAAGTA AACGCTTACT TATTAAGGAG GACATTTTAT GTCATACAAA	420
ACAAGCAATG CAGAAGGTCA TGTAGATTTC ATCAATACCT ATGATTTGGA GCCAATGGCG	480
CAACAAGTTA TTCCTAAAGC AGCATTTGGC TATATCGCTA GTGGGGCGGG AGATACTTTC	540
ACTTCTTTCC AGTGATTTTA GCGTCAGGTT CTTTGTAGTT TTTAAAGATT ATCCGTGAAT	600
TTCTTGCTTA TTTATGATAA AATGGGAGTG TCGCAAAAAA TGACTCATCG TATTCATTTT	660
TGAGTAAAC TAGGAGGATC CCATGTCTAC AGAACATATG GAAGAACTAA ATGACCAGCA	720
GATCGTTTCG CGTGAAAAA TGGCTGCGCT CCGCGAACAA GGAATCGATC CTTTCGGAAA	780
ACGTTTTGAA CGTACTGCAA ATTCACAAGA ATTAAAAGAT AAATATGCCA ACCTCGATAA	840
AGAACAATTA CACGATAAAA ACGAAACAGC TACTATCGCA GGACGCTTGA TAACCAACG	900
TGGTAAAGGA AAAGTTGGTT TTGCCACCT TCAAGACCGC GAAGGCCAGA TTCAGATCTA	960
CGTTCGTAAG GATGCTGTCG GTGAAGAAAA CTACGAAATC TTCAAAAAAG CAGACCTTGG	1020
TGACTTCCTT GGTGTCGAAG GTGAAGTGAT GCGTACGGAT ATGGGAGAAC TCTCTATCAA	1080
GGCAACCCAC ATCACACACT TGTCTAAGGC TCTTCGTCCT CTTCTGAGA AATCCATGG	1140
TTTGACAGAC GTTGAAACAA TTTACCGTAA ACGTTACCTT GACTTGATTT CTAATCGTGA	1200
AAGCTTTGAA CGCTTTGTCA CTCGTTCAAA AATCATCTCT GAAATCCGTC GTTACCTTGA	1260
CCAAAAAGGA TTCCTTGAAG TGGAAACACC TGTTCTTCAT AATGAAGCCG GTGGTGCTGC	1320
TGCCCCGCCA TTTATCACCC ACCACAATGC CCAAAACATT GACATGGTGC TTCGTATCGC	1380
GACTGAGCTT CACTTAAAAC GCCTTATCGT GGGTGGTATG GAACGTGTCT ATGAAATTGG	1440
CCGTATCTTC CGTAACGAAG GAATGGACGC TACTCATAAC CCTGAGTTCA CTTCTATCGA	1500
AGTTTACCAA GCTTATGCAG ACTTCCAAGA CATCATGGAC TTGACTGAAG GCATTATCCA	1560
ACACGTGCT AAATCAGTCA AAGGTGATGG CCCAGTCAAC TACCAAGGTA CTGAAATCAA	1620
GATTAAACGAA CCATTTAAGC GTGTTTCATAT GGTGGATGCT ATCAGAGAAA TTAAGGTGT	1680
CGATTTCTGG CAAGACATGA CTTTGGAAGA AGCTAAAGCT ATCGCTGCTG AGAAGAAAGT	1740
TCCAGTTGAG AAACACTACA CTGAGGTTGG TCACATCATC AATGCCTTCT TTGAAGAGTT	1800

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TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTGAAGCC CAAGCTAAAG CCAAAGAACT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGCTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCTTA TCCTCTGGGT CTTATCAGAG GATTTTTTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATAGT ACACTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTTGTGCA TGTPTTATTT	2340
CATTTTACGA TAGTACGCTG AAACTTTCA AAAAGTACTA GAAATGACT TGGATCCCCC	2400
AATGTATTTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATTCA CTTGTTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCATACC TCTCTCAACT AGATGTAAC TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTTCCTCCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCTA	2700
GTATCGTTTT TCCTCGCTAG ATTTCCCTCAA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCCTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAGATG GCGGAAGCGT TTGATTGTTA AAGTTTGGA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAACT TCGTTTTTGA TTAAGGTGTA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTGTAAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10711 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAACTA TTTGCCCTTG CGGCGGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTCAGCA CTAAAGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTCAACTATT TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AAATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAG	360
CTCAAGACTT TGTAACAGGA TTAATAATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAAGA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTCTT	480
CACAAGTAGG AATTAAGGCT CTGGATGAAC AGACAGTTCA GTACACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTCTAAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAG CTACGGATCC AAGTAGTCTC TTGTATAACG	660
GTCTTATTT GTTGAAATCC ATTTGTGACCA AATCCTCTGT TGAATTTGCG AAAAATCCGA	720
ACTACTGGGA TAAGGACAAT GTGCATGTTG ACAAAGTTAA ATTGTCATTC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAACTTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAAT ATTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAGG CATCGACTAA AAAGGCTCTC TTAACAAGG	1020
ATTTCCGTCA GGCTATTGCC TTTGGATTG ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAACTGG AGCAAGTAAA ATCTTGCCTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AAACCTTGGC GATATGGTCA AAGAGAAAT GGTCACTTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGA AGCAACTTTA GGAGCTGATA ATGTCATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

973

CAGATAGTGC TTTGATTATT CCAACTACAT CTCGTACAGG GCGTCCAATC TTGTCTAAGA	1800
TGGTACCATT TACAATACCA TTTGCATTGT CAGGAAATAA AGGTACAAGT GAACCAGTCT	1860
TGTATAAATA CTTGGAACCT CAAGACAAGG CAGTCACTGT AGATGAATAC CAAAAAGCTC	1920
AGGAAAAATG GATGAAAGAA AAAGAAGAGT CTAATAAAAA GGCTCAAGAA GATCTCGCAA	1980
AACATGTGAA ATAACGTGTG CAAAATATAA GAAAGGATT AGTATTTCCT TTGAATGCTG	2040
AATCCTTTTT TACATTGTGA AAGAAAGATT CTAAATGTA CGGACCCCCA AAAGTTGGAG	2100
CCTCTTTTTG TCAGAATAGA GAAAATTTTT GTTAATTTTA CTTGTTTCCT ATTGCTTTCT	2160
CAGCTATTAT TTGTTATATT AAAAGTATAA TTATTTTTTA TTTATCAGAG TTAAGCATTG	2220
CACTTTCAGA GGAAGGAGTA TTTTTTAAAA AGAAAATGTA AACGTTTGCT CAAAAATGAA	2280
AGGATTAGA AGTTTATGAA TAAAGGATTA TTTGAAAAAC GTTGTAATA TAGTATTCGG	2340
AAATTTTCAT TAGGTGTGTC TTCTGTTATG ATTGGAGCTG CATTCTTTGG GACAAGTCCG	2400
GTTCTTGCAG ATAGCGTGCA GTCTGGTTCC ACGGCGAACT TACCAGCTGA TTTAGCTACT	2460
GCTCTTGCAA CAGCAAAAGA GAATGATGGG CGTGATTTTG AAGCGCCTAA GGTGGGAGAA	2520
GACCAAGGTT CTCCAGAAGT TACAGATGGA CCTAAGACAG AAGAAGAACT ATTAGCACTT	2580
GAAAAAGAAA AACCGGCTGA AGAAAAACCA AAAGAGGATA AACCTGCAGC TGCTAAACCT	2640
GAAACACCTA AGACGGTAAC CCCTGAATGG CAAACGGTAG CGAATAAAGA GCAACAGGGA	2700
ACAGTCACTA TCCGAGAAGA AAAAGGTGTC CGCTACAACC AACTATCCTC AACTGCTCAA	2760
AATGATAACG CAGGCAAACC AGCCCTGTTT GAAAAGAAGG GCTTGACCGT TGATGCCAAT	2820
GGAAATGCAA CTGTTGATTT AACCTTCAAA GATGATTCTG AAAAGGGCAA ATCACGCTTT	2880
GGTGTCTTTT TGAAATTTAA AGATACCAAG AATAATGTTT TTGTCGGTTA TGACAAGGAT	2940
GGCTGGTTCT GGGAGTATAA ATCTCCAACA ACTAGCACTT GGTATAGAGG TAGTCGTGTT	3000
GCTGCTCCTG AAACAGGATC AACAAACCGT CTCTCTATCA CTCTCAAGTC AGACGGTCAG	3060
CTAAATGCCA GCAATAATGA TGTCAATCTC TTTGACACAG TGAATCTACC AGCTGCGGTC	3120
AATGACCATC TTAATAATGA GAAGAAGATT CTTCTCAAGG CGGGCTCTTA TGACGATGAG	3180
CGAACAGTTG TTAGCGTTAA AACGGATAAC CAAGAGGGGG TAAAAACAGA GGATACCCCT	3240
GCTGAAAAAG AAACAGGTCC TGAAGTTGAT GATAGCAAGG TGAATTTATGA CACGATTGAG	3300
TCTAAGGTCC TCAAAGCAGT GATTGACCAA GCCTTCCCTC GTGTCAAGGA ATACAGCTTG	3360
AACGGGCATA CTTTGCCAGG ACAGGTGCAA CAGTTCAACC AAGTCTTTAT CAATAACCAC	3420
CGAATCACCC CTGAAGTCAC TTATAAGAAA ATCAATGAGA CAACAGCAGA GTACTTGATG	3480

974

AAGCTTCGCG ATGATGCTCA CTTAATCAAT GCGGAAATGA CAGTACGCTT GCAAGTTGTA	3540
GACAATCAAT TGCACTTTGA TGTGACTAAG ATTGTCAACC ACAATCAAGT CACTCCAGGT	3600
CAAAAGATTG ATGACGAAAG CAACTACTT TCTTCTATTA GTTCCTCGG CAATGCTTTA	3660
GTCTCTGTTT CTAGTAATCA AACTGGTGCT AAGTTTGATG GGGCAACCAT GTCAAACAAT	3720
ACGCATGTCA GCGGAGATGA TCATATCGAT GTAACCAATC CAATGAAGGA TTTGGCTAAG	3780
GGTTACATGT ATGGATTGT TTCTACAGAT AAGCTTGCTG CTGGTGTTTG GAGTAACTCT	3840
CAAAACAGCT ATGGTGGTGG TTCGAATGAC TGGACTCGTT TGACAGCTTA TAAAGAAACA	3900
GTGCGAAATG CCAACTATGT AGGAATCCAC AGCTCTGAAT GGCAATGGGA AAAAGCTTAT	3960
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GAAGATGCCA ATGCAGACAA GAACGTGAT TGGCAAGATG TGCCATTGC TTATCGTAGC	4080
ATTATGAACA ATCCTCAAGG TTGGGAAAAA GTTAAGGATA TCACAGCTTA CCGTATCGCG	4140
ATGAACTTTG GTTCTCAAGC AAAAAACCA TTCCTTATGA CCTTGGATGG TATCAAGAAA	4200
ATCAATCTCC ATACAGATGG TCTTGGGCAA GGTGTTCTCC TTAAAGGATA TGGTAGCGAA	4260
GGCCATGACT CTGGTCACTT GAACTATGCT GATATTGGTA AGCGTATCGG TGGTGTGAA	4320
GACTTCAAGA CCCTAATGA GAAGGCTAAG AAATATGGAG CTCATCTAGG TATCCACGTT	4380
AACGCTTCAG AAACCTATCC TGAGTCTAAA TACTTCAATG AAAAAATTCT CCGTAAGAAT	4440
CCAGATGGAA GCTATAGCTA TGGTTGGAAC TGGCTAGATC AAGGTATCAA CATTGATGCT	4500
GCCTATGACC TAGCTCATGG TCGTTTGCCA CGTTGGGAAG ATTTGAAGAA AAAACTTGGT	4560
GACGGTCTCG ACTTTATCTA TGTGGACGTT TGGGGTAATG GTCAATCAGG TGATAACGGT	4620
GCCTGGGCTA CCCACGTTCT TGCTAAAGAA ATTAACAAAC AAGGCTGGCG CTTTGCGATC	4680
GAGTGGGGCC ATGGTGGTGA GTACGACTCT ACCTTCCATC ACTGGGCAGC TGACTTGACC	4740
TACGGTGGCT ACACCAATAA AGGTATCAAC AGTGCCATCA CCCGCTTTAT CCGTAACCAC	4800
CAAAAAGATG CTTGGGTAGG GGACTACAGA AGTTATGGTG GTGCAGCCAA CTATCCACTG	4860
CTAGGTGGCT ACAGCATGAA AGACTTTGAA GGCTGGCAGG GAAGAAGTGA CTACAATGGC	4920
TATGTAACCA ACTTATTTGC CCATGACGTC ATGACTAAGT ACTTCCAACA CTTCACTGTA	4980
AGTAAATGGG AAAATGGTAC ACCGGTGACT ATGACCGATA ACGGTAGCAC CTATAAATGG	5040
ACTCCAGAAA TGGGAGTGA ATTGGTAGAT GCTGACAATA ATAAAGTAGT TGTAACCTCGT	5100
AAGTCAAATG ATGTCAATAG TCCACAATAT CGCGAACGTA CAGTAACGCT CAACGGACGT	5160
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AAGGCCTACG CCCACAATAC ACGTCGTGAC AATGCTACAG TTGACGATAC AAGTTACTTC	5820
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TCAAGCATGT ACGGAGACAA GCATGATACA GGTAAAGSCA CCTCAAGCA AGACTTTGAA	6000
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GTGATGATG TTATCGAAGG AAATTGGTCA CTCAAGACAA ATGGAAGTAGT GAGCCGTCGT	6180
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GAATTCCAGT CAGGTCGTCG TGGTACTCAA GCAAGCAACT TGGAATGCA TGAATTGCCA	6360
AATACTTGGA CAGATTCTAA GAAAGCCAAG AAGGCAACCT TCCTTGTGAC AGGTGCAGAA	6420
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TCTGGTGAA ATGCCAACTT CCGTGGTTAT AACGACTTCA TGATGGATAA TCTTCAAATC	6540
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AACCTCAGTC AGGCCGATGA TGATATCAGT GTGAAGAAG CCGGTGCAGA GATTGCCAAG	6720
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GTCTTGAAAG AACCAACTGA AATCACAGGA CTTGCTATG TTCCGCTGG ATCAGGTTCA	6960
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GAGGAAGTAG CTAGCGTTCA GGCAAGCATG AAATATGCGA CGGATAACCA TCTCTTGACG	7320
GAAAGAATGG TGGAACTACTT TGCAGATTAT CTCAACCAAT TAAAAGATTG TGCTACGAAA	7380
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GATAGGCATT TCGTCCAGTT CCATAAGTCA AGACTGTTTT CATCATGTCG GTCATCATAT	8340
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GCGATTGTTG CAGGGCGTAT TGCAAGGTGA TGTGCCAAA GTAGCCCTTA TCCCAGTTAT	8700
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CCCAGTCGCG GTTTGTTTCT ACTGCTTGGT TAATCCGAA GGAAACATTA CTTGACTGAT	8880
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AGCCTGTTTC TTCTTCAACT TGATTGATGA CTTCTTGAG GTAATTATCC ATGTAAGCAG	9120
GGTAATTACT TGCTGATTG AGACTTTGTA GTCCATCAGT AATTGGTGTA TTGACTGCTT	9180
TCTCATACTG TTCAGCAGAG ATGTAGCCTT GATTTTTCAT TTCAGATAAG ACCAAGTTTC	9240
GGCGTGCTTG GGCTGCTTCT GGATGTGAAT AGGGGTCATA TTGGTTTGGT GCCTGAGGCA	9300
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GCCAGAATAG TCCGTCGTTG AAGCTTGTCG AAAATAGGCT TCAACAATCT TGGCAGGACT	10320
TCGTGTGGA TAGTCCACTT GTACGATTG AATAGGAGTT GGTTCCTTAT GTATAACAGC	10380
CAAGCCCTGA GACAAATAGT AGTCGTTGGT AGCATTGATC ATCTTTTCAA AGGGTACCGA	10440
GCTCGAATTC GTAATCATGT CATAGCTGTT TCCTGTGTGA AATTGTTATC CGCTCACAAT	10500
TCCACACAAC ATACGAGCCG GAAGCATAAA GTGTAAAGCC TGGGGTGCCT AATGAGTGAG	10560

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CTAACTCACA TTAATTGCGT TGCCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCGTG	10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTTGCCTA TTGGGCGCTC	10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C	10711

(2) INFORMATION FOR SEQ ID NO: 146:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11887 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTCATT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA	60
CGGATACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT	120
TGCTTTTGGT AGTATGAACC ATACGTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC	180
TCTGGACCTT TTTCTAGTGT CTCACCTACC TCATATTCCT CACCCTTACT AGAAATAACA	240
CTCAAAGCAG ATACTGTGCA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA	300
CCCAATTTT TATAACAGT TTTCTTCATT ATTGTATCCT CCTAATGTAA TTATAGCGTA	360
CTATCTATAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTTAAATACC	420
CTCCATTATC ACATAAACAG GTAAACTTTT CAATTAATGA CTGCGCTTTT CAATCACGCT	480
AGAGGTACTT GCTTGCTTCT TTGATACTAA GTTCAGCCAT TCTTTCCTTG TTTTCTCAA	540
TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG	600
CTTTATTGAT AAAAAATTCT GTTTGGTTCA AGTTATGAAG GAGAATCTTT TCCATTAATT	660
GAGTATTGGT CTTCTCTTTT CTTAACAAC TGGGTCAAT AGCGACACGT CTCAGCCAGA	720
TATTATCTGA TAGGCTCCAT TTTATACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA	780
GCCGCAGTTG CTCAAAACAC TGTTTTGAGG TTGCAGATAG AGCTGACGTG GTTGAAGAG	840
ATTTTCGAAG AGTATTAAGA TTATTTCTTC TAGTTCAGGG TGTTTCATACA CCAAACCTCC	900
TACTACTCGA TCTAGGATAT CTACCGTGTC CCACAAGGAT TTTGTCACGA CTAACGTCTC	960
TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC	1020
CACATATTGG TATTTTCTAG GATCCTTTTC CCAGCAAGTG TCTGCAAAAT CCCAATCGAT	1080
AATCTTTGTT TTTTTCGCTT CTGGAAAATA TTTTATAGAG TTTATTTCTT TCAGGCACCG	1140
CAATACCTAG AAAAGAAAT TGATGGCGCA TATAGGCTTC CATGGACCTT GCTTTTTTAG	1200
AGTCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT	1260

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CCCCACCAA ATGGTGCTGA AAGGCATAGA CAGCCGCCTG GGTACGATCG CTGACTTCAA	1320
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CTGCGATGCG CTGATTTTCG TAGCCCTTGG CGATGAGTTG GAGAACATCT CGCTCACGCG	1440
CAGTCAATTC TTCATGAAGT TCCATATGAT TGCGGTGGTA TTCAACCTTC TTGCTAACCT	1500
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CACTAGAAGT CTTGAGCATA TAGCCTTTGG CACCAGCATC TAAGACTGGC ATGATTTTTT	1620
CATTGTCCAA ATAAGAGGTC ACAATCAAAA TCTTGGCTTC AGGCCATTCT TTAAGGATTG	1680
CTAAGGTCGC GTCAATCCCA TTCATCTCAG GCATGACAAT ATCCATGACA ATGACATCTG	1740
GACGCAGTTC CAAGGCCAAG TCAATCCCTT GAGACCCGTT GGACGCCCTCA CCCACAACCT	1800
CTACATCGTC TTGGAGGTCA AAGTAGCTTT TCAAGCCCAA TCGGACCATT TCATGGTCAT	1860
CTACTAGTAA AATTTTCATC TTTACTCCTT TATCATTCCT TATCTAACAG GGAATACGG	1920
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TCAACCCGCT CTTGATATT TCGCAGTCCA TAACTCAAGT CGTCTAAGCT CCCTAACTGG	2040
AAACCAATCC CATTTGCCAC CACCTTCAGT TGCAATTCAA CATCTGCTG ATAGAGGTAG	2100
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CGGAAGATAT GCTCCTCGAT TTTCTTAGGC AATTTCTGCA TATTTCTGCTT GAGACTAACC	2220
CTAAGATCAC TCTTGCTCTC AAGCTCTTTT AAAAGAATTT GAATCCCTTC TATCAAGCTC	2280
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TCTTGTTACT CTTGAGATAG TCTTTTGTTC CTTGATGATA GTGTTTATTG CGGAGGGCTC	3000

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ACCAACGATT TTTCTCCTTC TTAACCGTCA CGACCTCTTC AAAAACCATA TTGGTCTGCT	3300
CTTTTTCCTG GTTCATCATC GGGTAAAGAA GAAAGAGGCT ATAGATAACC GCAACAAAAA	3360
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TACGCCCTTT TCATCTGATC CTTTGCCTCT TTTAATTTTC CATAAAGAAG ATAGTCTACT	3720
TTTTGTAGAT CTGCTATGGT GGCACAGTTA AGGGAACACA TAATCAAGCG TAGATCTGCT	3780
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GGTCAATAAT CTACTCATC TTGGCATGCT CGACCTCATT TTGTAGCTGA CCATTGATGT	6420
AAAATTCGTC AGCTGTTACA TTGGCTGGTA AAGGCGACAA GGTCGTCTCT GTATACATAT	6480
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CCCAATATTT GATAATAGCA ATATTTGCGT AGGAACGTAC TGTTACAGGC TCTCTATCCA	6600
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AATCGCAACT TCTGCTTGCT GGGTTAATTC TCCCAAGGCA TGCAAAAACG GTAGGGCATC	6900
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GGCAATCACC AAATAGGCGG ATAAATCCAT CTCAGTTCT GTAAATCCTA CGTTCCTGAT	7020
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GGCAATCATT TCAGCTCGAT TGACCAAGAT TTCTAGTACA TCATGAGGCA GATCAGCCTG	7140
ATAGTAGTCA AATACTGCAC GAATGGCCGC TATGCTGATA GCCGCTGACG AACCCATCCC	7200
CCGTTTCTCA GGGATAGCCG AGTCAATCTC ACAACGAATG CAGGCTTCTG TGATATTCAA	7260
ATACTCCAGT GAGGCATAAA CCGCCATGGA CAAGGTATCC TCCTCATAAA GGCGCCAAGG	7320
ACTCTCTGCA GGAACCTACT TACAGGTCAC CTCCACCTCC AAAAGAGGCA GGGAAATGGC	7380
AGGATAACCG TAAACGACCG CATGTTCCCC TATTAAAATT ATCTTACTAT GTGCCTGACC	7440
GACACCAACT TTTTTTGTCA TTTTTTCCTT TTACTAGACG AAAAAACGTC TTATTTTTCA	7500
TACAAGTATT AATTCTTTCC TATCTATTTT ATTATATTTT CACAAAAAAA GCGATTGTTT	7560
CCATTCACAA TCGCTTCTTT CATTATTGAA CCCATTGCCC ATTATAGTTG ACAGAATAGC	7620
CATCTACGGT CGTATTCACT GCCAAGGCAC CTGAGCGCTA TAAGCGTAGT ACCATCTGCC	7680
ATTGACCTGG AACCAACCTG TCGTCATAGA ACGACGAAAG AAATCCATA CCATTAAGTA	7740
AAGAGGAAAG TCGTGAGGGA GCATGCGCCA TTGACAACCT GTTTTAGTGA CGTACAAAGT	7800
CTCATTAACA AGTACTCGTT TCGGCCATTT ATAGGTGCGG TGTTTGAGA AATAGGGTTC	7860
AATCTTCGCC CATTCTTGAT CGTTTAAATC AGTATCATAT GCTTTGCGTA TCATAACTCT	7920
AGCTTAACAT TTTTTTGTGA ATACAGGTTC TAAATAATCG ACCACGAAAA TTTCTTAAGT	7980
GGAAAAAGCC TTATGAAGTA TGCTACGGGA AAGTTATGCA CTTAATTTGA CAATTCAAGA	8040
TGTAAAAATA TATACTATAG TAGATTGAAA CTAGAATAGT ACACCTCTAC TTCTAAAAATA	8100
TTGTTAGAAA TCGATTGAC TGTCTGATC GATTTATCCT GTTATTATCT CATTTTACTA	8160
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TCTAACTAAA GGATCCTATT CAATTACTAG AACTATCACA TACTCAAGGT CAGCTCACAG	8280
ATGAGCAACT ATTTTGGTTA CAATGTCTAC TAAATTTAAG TCAAAACAAAT AATTTAGTCA	8340

983

AAATTAAAAA AATAGAGGAA CATAAATATG ATTACAAAAC AGAATGTAAT AGTGTCTTAC	8400
AATTTTACT AGATAAACT GTAAATTCTG AAGGAAGGAT CACTTCTTCA ACAGAATTG	8460
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ATAAATTGTA CCCCCAGAA CTGGATTCTA AAATACTCTC TATCATCAAG AAGGCAGTGA	8580
CAATTAGAAC GACACACACA TATGAATATC AATACTCACT GCTATTTGGT GATGCAGGCT	8640
ATCTATGGTT ACTCCTACAT TTATTTTCTA TCAGTAAAAA TCAATACTAT CTACAATTAG	8700
CAACGTCAC CGCTAAAAA TTAATAGAGA ATTATGATAC TCTAGAGGAA ATAGACTTTG	8760
CATTGGGAAA ATCTGGTGTC CTATTATCAT TAATAAATA CTATCAATTT ACCAATGACA	8820
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GAGATACAGC CAAAGAAAGC ATTTTAGACT ATAGCTTTGC TCATGGATAT TGTGGAATTG	8940
CATATGCTTT ATTTGCCTAT TCTAAAGTCT TAGAACCTTC TATGTTTTAT AATGATCTCC	9000
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ACTTCGGAAT AGGAAGCATG GGGTATATTG GTGTCTATTA AATAATAAAT TCCCATTCGA	9420
TGTGCAGACA TAAGGAGAAA AGTATGAAAT TATTTTGGAC AAACAACATA TATAGACAGT	9480
TGCTGCTAAA CAGCTGTTTT TCATCATTCG GCGACAGTAT TTTCTACCTC GCCATTATCA	9540
ATTATGTGGC TCAGTACAAT TTCGCTCCGC TAGCGATTTT ACTGATTTC ATTTTCAGAGA	9600
TGGTTCCCTT ACTATCGCAA CTCTTTCTCG GGATTCTAGG AGATTTTCAA GAAAATAGAG	9660
TCAAACACGC ACTCTGGATT GCCAAAATCA AAATCCTGCT CTACGCTATT TTGACAGTAT	9720
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TCTCTGACAC CTTGAGCTAC CTGTCTGCCT ACATGATGAA CGCCCTCTAC ATCAGTGTA	9840
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TGTATGAGGT TGAAAAAGA ATTGAAATGT CACATACAGC ACTGAGTTTT AAGAAATATT	10080

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TGTTTCTGAC GACCAGTATG ATTGCCATCT TGGATGTGTC CCCTCGGCTG ATTGCCCTCC	10200
GCTTCATCCA ACAGACACTA GCACAACCTGA GCATTGGGCA ACTCCTCGCC CTGCTCTCCA	10260
TCATCATGTC TTGTGGAGCT ATCCTTGCCA ATATGACCAG CAGTAATCTA TTTAAAAATA	10320
TCCGTTTCAC GCACCTCTTG GTTTTCTGTG AGATTTCCTT ATTGACTCTA ATAACCTAGTA	10380
TCCTTTGTCA AGCCTATATC GTAATTTTCA TGACCAGTTT CATCAGTTCT ACGATTATCG	10440
GCATTCTCAG CCCTCGCCTA CAAGCAGCTG TCTTTGCCA TATCCCCAGT GACAAGATGG	10500
GGACGGTGGG CTCTGCTCTG AGCACAGTGG ACATTCTCGC CCCGTCCCTG CTCTCCCTAT	10560
TAGCCCTATC CATAGCATCG GGCCTTTCGG TGCAGTTAGC ATTGATATTT TTGTATCTTA	10620
TTTTAATGTC TCTTATCTTT TGTCAATGGT TAGTCAAGTT CAACACTCAT AACTAACGAA	10680
AAAGCATGTG TAGATTTTCA ATGCTTTTAA TCTCCCCAAT CGTCAGGTCA AGTACAACAA	10740
AGTCACTTCT TTGATTAAGC GAGTGTCTTA ATATAATTAT AAGCGCCCTG TCATTACCGA	10800
ACCCATTTCG CATTATAGTT GACAGAATAG CCATCTACGG TCGTATTTCAC TGCCAAAGCA	10860
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GCTCCTGATG AACGGAGATA GTACCATTTG TTCCCAAGGT TTTGCCAACC TGTTTTCATA	11040
TCGCCATTTG GGTGGTCTAA ATAATACCAA GTGGTACCTT CCTGATACCA GCCAGTGGCC	11100
ATTGCTCCTG AGGAACGGAG GTAGTACCAC TTATTACCTA GATATTGCCA ACCTGTTTGC	11160
ATAATACCAG TTGTTGGATC TAGGTAGTAC CAAGTCGAAT CATCGTTTAT CCACCCCGCA	11220
CGTCTTTCAC CACCAAGGTA GTTTTCTCCA TTAATTTCCG TCTTAGCTAG ATAATACCAG	11280
TTAGACTGAT CATAAAGCCA ACCTGTCTCT AAAGAATGAT TTTGATTAAA GTAATAGTTC	11340
GTATAATAAC GCTTCTCTTC TTTATCTTCT GAATCTTCAC GTTTTCCCC GTACTTTCTT	11400
CCAACACTGT CTTTAGTTTT AATCTCTAAT GTTTTCCAAC CAACAACTC TTGTAGCACT	11460
CCATTTTTAT CGAAGTAGTA CCACTCTGAC TTTGGAAAAC CTTCTAATCT GATACCATTT	11520
GGGTAAGGAC CAATTGTACT ACCTTTAGAT GGAACGGGA TATATTGCCA GCCGACAACC	11580
ATCTCTCCAG ATAGAGAATC AAAATAATAG TACTTACCAT CAATCACTCG CCAGTAGGTT	11640
TCTTTGAGGT CCCCTTTTTT GTAGTAGGTT CTTCCGTTTT CTTGGACAAA CTGCCATCCT	11700
TCAGAATCAT CTGCAAATAC TGTACTGGTC CCTAGCAAAC CAAAGAAAAA TACTGTCTAGT	11760
CCAACTTGCA TAGTTTTTTT CAAAATTTTC ATCTATATAC CCTCCAATAT TAAATCCACT	11820
CACCAGATGA GGCGAAATTA TAACTTTTAC CATCGATAGT TTGGCTACCT GTAACCATTG	11880

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CTCCAGG

11887

(2) INFORMATION FOR SEQ ID NO: 147:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11340 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTCAGCTGG GTTTTGGAGT CTGGTATTTT	120
AAACGCTGAT AAAATATCCG ATATTCCTTT ATCAGTTTGG GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACTTTCTA GTCTTTACAA	300
GTATCTAACC GAGGAGGTTG AAAACGATCA GGGGGAACCT TATTCTATC GTAATGTAAT	360
GAAAAAAGTT TCCACCAAGA AAAAGAAAGA AACCTTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAAACCT TTTCTAGGTG ATGAAACAGA AGGTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTCAAC AAAAATAAAG AACGAGATTT	540
AGCCATTATT GCCCTTCTCT TGGCATCTGG TGTTCTGCTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATTGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTGTCTAA ACCTTATTTA GAGAATTATC TGGCCATTCTG	720
GAATCAACGC TATAAACCGG AAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTFCTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTGG	1080
ATTTATCCAA CTACCGCTTC AGCGATTCTC TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTTCGCGC CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTGG ATTCAAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320

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CCACGACGGA CGTTAAATTC AGGTGATTTA CCATAGTTCC AGTCCCAAGT TCCAAACTTA 1380
GTATCCTTGA TGC GATTGAT TTCGGCCAAT TCTTCTTCTG AAAAGACGTA TTCAGTCATC 1440
TCTGGGTA CT TTTTTCAT GTATTCCAAG AGTAAATCAC GGAATTTTTC GACTGTGATT 1500
TTTTTTGGTA ATTCAATGAT AATATTGGTT ACACGGGCAC GGACGGATT CACACCTTTT 1560
GATTCAAATT TATCTTTTGA AACCTTAAGG GCATTGCGA GGAAGTACAA ATCAACGTCA 1620
AAGAGCAAGC AACCGTGGT CATGATACGG CCGTTGATAT AGGCTTGGGC ATTGCCACAG 1680
AACTTCTTAC CATCAATCTC AAGGTGATTA CGACCTGTGA ACTCAGCTTT AACCCCAAGT 1740
TGAGCCAGGG TATTGATAAC CGGAGTTGAG AAGCTCTTGA AGTCAAAATGC CTTATTTTCA 1800
TCTTCTTTGG AGATGATCGT GTAGTTGAGG TTATTTAAAT CGTGGTAAAC AGCTCCACCA 1860
CCACTAATAC GGC GAATAC CTCAATACCA TTTTCGCGAA CATAATCAG GTTGATTTCT 1920
TCGATAGTGT TCTGGTGACG ACCAACAATG ATAGATGGCT TGTAAATCCA AAGTAGGAAG 1980
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GCCATTCCTA GAACATCTGC AAACGCTTCG TACATCACTT CAGAGTAAGT TGGGTGCCCCG 2220
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GCAGCAAAGT TAAACTTACC GATGGCAACA TCGTATTTCT CACGGGCTTG TTCTTCTGTC 2460
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GCAACTGCAT GATTTCCCTT AAGGGCATTT TCAGCGGAAA CTTACCCAT GCGGAAAGCT 2580
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GTACCAGTCA AGATGGTCAT TCCTTTACGC TCAAGAATCA AGCGAAGGTT CTTAGAAACT 2880
TCCACATCCA TAGCTGGAAC TATACGGTCC ATCATTTTGA TAACAGTCAC TTTTGAACCA 2940
AATGTCATGA AGGCCTGACC GAGTTCGATA CCGACAATC CACCACCGAT GATAACAAGG 3000
CTTTCTGGCA CTTCTGTCAT TTCAAGAATG TCATCACTAG TCATGACAAG TGGAGATTCC 3060
ATACCAGGGA CGTTGATCTT GTTGACTTTT GAACCACCAG CAAGAATGAT TTTCTTGGTT 3120

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TCAAGCAATT CAGAACCATT TACCAAGACG TTCTTGCTCT TAGTGATTGT ACCAATTCCT	3180
TTATGAACAG TAACTCCGTA GCTACGAAGA AGTCCTGCAA CACCACCAAC AAGAGTATTA	3240
ACAACTTTAG ATTTAGTTTC TAAAAGTTTT TCCATATCAA CAGTGAAGTT AGGATTTTCA	3300
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TAGGTCTTGG TTGGAATACA TCCACGGTTT AAGCAGGTTT CACCAAGTTC AGATTTCTCA	3420
ACAAGGGCAA CCTTACCGCC GAATTGGGCA GCTTTAATGG CTGCAACATA ACCAGCAGGA	3480
CCTCCACCAA TCACAACGAT ATCAAAAGCA TCATCGCTCT TACCATCATC GTTTGAGGTA	3540
CTTGCTACAG GTACAGGGCT AGCTTCTGGC GATGCTGCTC CAGCTGTTGG GATGTTTTC	3600
CTTCTTTCAC CAAGGTAACC GATAACTTCC GTTACAGGGA CAGTTTCACC ATCTCCTTTG	3660
AGAATGGCAA TCAAGTACCC ATCTTCTTCG GCTTCCAATT CCATGCTGAC TTTATCAGTC	3720
ATGATTTCCA AAAGGATTTT TCCTTCTTTT ACAAATTCCT CGACTTTTTT ATTCCATTGG	3780
ACGATTGTGC CTCTGTCAT ATCCACGCCG GCTTTTGGCA TAATTACTTC TAAGGCCATG	3840
TCTTCCTTCC TTTATCTATA TCTTAAAAAT GAATACTCTT GCTCTTAAAT TAACATTGAG	3900
ATTGGCGTTT CAATCAACTC TTTCAAGTCC TTCATAAACT TAGCACCAGC CATACCATCT	3960
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GAATTTTGTA ACTCACTTGG AGCCAATTTA CCATCCAAGG TACGGCCAAT AACATCCTTA	4200
AAGGCTACAA CCAGTTCTGA AAGACTCATC TTCTCAGCAT TGTAAACAAC AGGTGTCATC	4260
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ATTGGAATAC GCTCGATTTT ACCATATGGT GTTACGTTAT CAGGGACTTC TTCCACTTTT	4620
TCAATCTGAG CAGGAGATTT GATGCTATCG TTTTCGATAT TTTCAGGAAG CAGGGCCAAA	4680
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AGGTTTATCC	CTAAATCATC	CGCTAACTTT	CTAGCTGCAG	GAGTCGCTCT	TAGCTTGTC	4920
TCAGCCATGA	CCTCTCCAAT	TCTATTTATG	ATACAAAGGG	CGTCAAAAGC	GACTGAAAAA	4980
TAGGAAATCG	ACGATGGCTT	CGATGAAGCC	AAGGAGATTT	ATCTTTTTTC	CGATCTTTTA	5040
GCCCGTGCTC	TAATCTAAGA	TATTAATGAC	GAAGAGCTCT	GCACCTAAAA	GATACAAAGT	5100
TTCTCGTCAG	CTTTATTTTA	TTTACATAAC	TTATCTTATG	TAACCCTATT	CTTTGTTATA	5160
AGTTTTTCGG	ATTGCATCTT	TGATACTTTC	AACTGTTGGA	ATCATTGCAT	TTTCTAGGTT	5220
TTGTGCATAA	GGCATCGGCA	CATCTTCTCC	TGCACAACGG	CGAATTGGTG	CATCTAGATA	5280
GTCAAATGCT	TCTGATTCTG	AAATAATAGC	TGAAATTTC	CCGATATAGC	CACTTGTTTT	5340
GTGGGCATCG	TTGACCAGAA	CAACCTTACC	AGTCTTCTTC	ACTGAGTTTA	TGATGATATC	5400
CTTATCAAGC	GGACAAGGG	TACGTGGGTC	AACAATTTCA	ACTGAAATTC	CTTCTTCTGC	5460
TAATTCCTTA	GCAGCTTGAA	CCACACGGCG	AAGCATTTTT	CCATAAGTAA	CAACTGTTAC	5520
ATCCGTTCC	TGGCGTTTGA	TTTCACCAAC	CCCAAGTGGA	ATTGTGTAGT	CTGGATCAAC	5580
TGGCACTTCC	CCTTTTTGGT	TAAATTCTGA	CTTGTACTCA	AGTATAATAA	CTGGGTTGTT	5640
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CAAGACTGGA	CCATGCCCAC	TGCGAACATG	GTCCACAGCT	TTCTGAAATC	CTTCATAGAC	6480
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TTGATGGATA	TGTTCTATAT	TGGTCATTTT	CTTGATATCC	GCAGAGATAC	CGTAACCGTT	6600
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CCTAAACCAG CACCAGCCCC TCCCAGTTCT GGAACACCAA AGGCACCGTA AATCAAGAGA	8100
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AAGCCCAGCG AATCCAGCAA GGAACGAATG ACGCTAAAGA GCAACAAGGG GATAATCCCG	8220
ATAGATAAAA ACCAAAGATA GCGAACCGCT ACTGCCGCTA CTGCTGCTTC TAACCAATA	8280
TGATTCAAGA TTATTGGTGC CAAGAAAAGT ACCATCCCCA GCAAGACCAC AGATAGGCCC	8340
AAGGCCAAT AAATAAATTG GTAAAAATCA GACGCAACTT CTTCTTTTTT GCCTCGACCA	8400

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GGATTCCAGA TACTGGTTGC CATAGATACA CCAGCCAAGT CCATAGTGTT GTATTGACCT	8520
GTCATTGCAG TATCAACAAA AGAGGCAGAA TAATTGGCAA ATTGGTAGAT CAGGATTGGG	8580
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CGGAGGTTTA TTAGATTTTG AAGTAGTATG CCAACACGCA CATGTACGAC AATAATAGCT	8760
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GTCCCTTACA GATGGTATAT TTAACCTGCC CTTTAAAGGT TTCACCGATG AATGGTGAAT	9000
TAGCTGCTTT GGAAGCAAAA TGGGAGTCCA CAAAGCGGTC AGCCTTGGCA TCAAAAATAG	9060
TGATATCTGC TGGACCATTC TCAGCCAAGT AACCTGCTTC AAAGTTGTAA AGCTTGGCTG	9120
GGTTGTATGT CATTTTTTCA AGTAATTCCA TCAAGCTCAA CTCACCAGCT TCTACTAAAT	9180
AGGTCAAGCT GAGAGACAGG GATGTTTCTA AGCCAGTCAT ACCAGATGGC GCTTTGGTAA	9240
TATCCTCAAC ATTTTTTTCA TCTACATGAT GAGGCGCGTG GTCAGTCGCA ATAAGTGTGA	9300
TGACACCTGA TTTGAGACCT TCGATAACGG CACGACGGTC TGATTCCAAA CGAAGCGGTG	9360
GATTTCATCT AGCATTGCTA CCTTGTGTTA AAAGAAGTGC TTCTGTCTTA GAGAAATGCT	9420
GTGGCGCTAC TTCTGCTGTG ACTTCTGCAC CTAACCCCTG AGCAAACTCC ACTACTTTAA	9480
CACTTCTTTC CTTAGACAAA TGCTGGATGT GAACATGGGC TTTAGTTGCA TAGGCAATCA	9540
TGACATCAGC CGCCATCATA GCGTACTCAG CCACCCAGT AGCACCGCAG ATATGGAAAT	9600
GTTCTCTAGC AATATTTTCA TTAAGCCAA GAACACCGTT CAAACCTGGA TCTTCTCAT	9660
GAAGGCTGAT AAAGGTATTG AGTTTTTTGG CTTCTCCAT GGCTTCCCTG ACAATCTTAC	9720
TGCTCTCAAG CGGAATACCG TCATCAGAGA AACCAACCGC ACCAGCTTCT AAGAGTGCTT	9780
TAAAGTCAGT CAAGTTTTTA CCATTAAAGT TTTTAGTAAT GGTGCGAACT GTCTTGACAT	9840
TAATCTTCTC TTTGGCAGCT GACTGGAGAA CTGCTTGCAA AGTCTCCACG TCTGAAATGG	9900
TTGGACTGGT ATTAGCCATC ATGACGACAG TAGTAAACC ACCTGCAGCG GCTGCTAGGG	9960
CACCAATATG AATGTCTTCT TTATGTGTTT GACCAGTTTC ACGGAAATGA ACATGAATAT	10020
CGACCAAGCC AGGAGCAACC ACAAGACCAG TAGCATCAAT CGTTTCTGCT CCTTCTTCCG	10080
TGATCTCAGA CGCAATTTTG ATAATTTTCC CATCTTGAAC TAAGACATCA CAAACTTGAT	10140
CCAAACCAGA CTTGGGATCC ATTACACGAC CATTTTTGAT TAGTAGCATC TGCTTCTTCC	10200

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TTTATTCATA GAAATCAACT TGGGTATCCA ACAATTTATC CCCATCATAA ACAAACCTTG	10260
CTGAAAAGAA GGGTTTATCC TCTAAAAGCC ACTCAACAAA GGTGTGGTCA CCTTCCCAAG	10320
TCGGCTTGCT CAAAACCTCA TCATAGGGAA CCCATTCTAG CGTCCCCTCA TTGCAGTCAA	10380
TCAAGTCGCC CTCAAACTCC GTCACCTTAA AAACATAGGT GTACCAGTCT AAATCTGGTG	10440
TAAATTCAGG AAAAGTGATG ACACCTTTTA GAACTGGCTT GGCTTTGAGC CCTGTTTCTT	10500
CAAGGATTTC ACGCGCCGCG CATTCCTGGG GCGTCTCTCC TCTCTCTAGC TTACCACCCA	10560
CACCAATCCA TTTCCCTTCA TGGACATCAT TGGGTTTCTT ATTACGATGG AGCATGAGCA	10620
GTTCCTTCCC ATTATCAATG TAGCAAATCG TCGCTAAGT AGGCATATTT TCTCCTTATC	10680
TAAGCCAATC GATTGGCTCT TGTCTGTCT CTTTAAAGAA TGCATTGGCC TTGAAAAGG	10740
GCTTGGAACC CAAAATCCT CTATAAACCG ACAAAGGACT TGGATGGGCT GATTGATAA	10800
TCAAGTGATG AGGATTGGTA ACTAATGCCT TCTTCTTACG TGCATAAGCT CCCAGAGTA	10860
CAAAAACGAC TGGTCTATCT AGATGATTGA CCACCTGAAT CACAGCATCA GTAAAAGGCT	10920
CCCAGATTG ACCAGCATGA CCATTGGCCT GTCCAGCAGG AACAGTCAA CAAGCATTA	10980
GAAGCAAGAC TCCTTGCTCA GCCCAAGCTG TCAAATCATG AGATTTCTTA ACTCCGATAT	11040
CATCTGACAA TTCTTTCAAG ATATTTTGCA AGGATGGTGG AGCTGGGATA GAGTCAGGTA	11100
CAGAAAACT CAAGCCCTGC GCTTGACCTG GTCCGTGATA GGGGTCTTGC CCTAGAATTA	11160
CCACCTTAAC TTCTTCAAGC AGTGTGTGTA AGAGAGCCTG AAAAACCTTT TCCTTGGGTG	11220
GATAAATAAT CCCCTGAGAA TAGACCTGCT CCATAAACTG ATTGATTTTC CCGAAATAAC	11280
CCTCAGGTAA TTGCGCCTTA ATCAAAGCAT GCCAAGACGA GTGTTCCATA GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12127 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAAATAGA CTGTGTAGAC TATAAATGTA GTAAGCCTAC ACAAGAAAAA TACATAGAGA	60
TAAAGGTGAT TATTATGAAA TTCAAAAAA TGCTTACTCT TGCAGCCATT GGCTTATCAG	120
GATTTGGGCT TGTGCTGT GGCAATCAGT CAGCTGCTTC CAAACAGTCA GCTTCAGGAA	180
CGATTGAGGT GATTTCACGA GAAAATGGCT CTGGGACACG GGGTGCCTTC ACAGAAATCA	240

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CAGGGATTCT CAAAAAGAC GGTGATAAAA AAATTGACAA CACTGCCAAA ACAGCTGTGA	300
TTCAAAATAG TACAGAAGGT GTTCTCTCAG CAGTTCAAGG GAATGCTAAT GCTATCGGCT	360
ACATCTCCTT GGGATCTTTA ACGAAATCTG TCAAGGCTTT AGAGATTGAT GGTGTCAAGG	420
CTAGTCGAGA CACAGTTTGA GATGGTGAAT ACCCTCTTCA ACGTCCCTTC AACATTGTTT	480
GGTCTTCTAA TCTTTCCAAG CTAGGTCAAG ATTTTATCAG CTTTATCCAC TCCAAACAAG	540
GTCAACAAGT GGTACAGAT AATAAATTTA TTGAAGCTAA AACCGAAACC ACGGAATATA	600
CAAGCCAACA CTTATCAGGC AAGTTGTCTG TTGTAGGTTT CACTTCAGTA TCTTCTTTAA	660
TGGAATAATT AGCAGAAGCT TATAAAAAAG AAAATCCAGA AGTTACGATT GATATTACCT	720
CTAATGGGTC TTCAGCAGGT ATTACCGCTG TTAAGGAGAA AACCGCTGAT ATTGGTATGG	780
TTTCTAGGGA ATTAACCTCT GAAGAAGGTA AGAGTCTCAC CCATGATGCT ATTGCTTTAG	840
ACGGTATTGC TGTGTGGTTC AATAATGACA ATAAGGCAAG CCAAGTCAGT ATGGCTGAAC	900
TTGCAGACGT TTTTAGTGGC AAATTAACCA CCTGGGACAA GATTAAATAA AATGTTTGCT	960
CCATAAATCT CTAAGAGAT GCAGACGTTT CATCGTACAA TAAGATAAAG AAGGCAAGTA	1020
GGGAGGTGTC GTATCTCCCT TACTTTCTTC ACTAGAAAGG ACAAGATGTG ACAAACAAG	1080
CCTTCAAAGA AGCAGTTTTT AGGGCAATTT TTTTCATGAG TGCAACAGTA GCTGTTGTAG	1140
CTATTTTGCT AATCTGTTTC TTTATTTTGA GTAATGGCTT ACCTTTCATA GCTAACTACG	1200
GCTTTGCCCG TTTTTATTA GGCAGTGATT GGTGCGCAAC GAACATCCG GCAAGCTATG	1260
GTATTTTACC AATGATCGTT GGTTCCCTAT TAATTACCTT AGGAGCGATT GTGATTGGGG	1320
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GCTTCTTAAA ATCAGCTATC AACTTGATGG CAGCCATTCC ATCTATTGTT TATGGTTTTT	1440
TCGGCTACA ATTATTGGTG CCTTGGATTA GAAGCTTTTT AGGAAATGGC ATGAGTGTCC	1500
TAACCGCTTC GTTACTATTA GGAATAATGA TTTTGCCAAC CATTATCAGT TTGTCAGAAT	1560
CTGCTATCCG AACAGTTCCC AAAACGTATT ATTCTGGTAG CTTGGCTCTA GGAGCTAGTC	1620
ATGAACGGAG TATTTTATAGT GTCATCTTGC CAGCTGCGAG ATCTGGTATT TTATCAGCAG	1680
TTATTTTAGG AATCGGTCGC GCAGTAGGTG AAACCATGGC AGTTATTTTG GTGGCAGGCA	1740
ACCAGCCGAT TATTCAGGT GGAATCTTTT CAGGAACCAG AACCTTAACA ACCAATATTG	1800
TTCTGGAAAT GGCTTACGCA TCAGGTCAGC ATAGGGAAGC CCTTATTGCA ACCTCAGCAG	1860
TTCTCTTTTT CCTTATTCTC TTGATTAATG CCTACTTTGC CTACTTGAAA GGAAATCAT	1920
CTTATGAGTA AATACCTGCT AAAACTTCTC GTTTATTGTT TTTCAGCTTT AACCTTTGGC	1980
TCTCTCTTTT TAATCATTTG TTTTATCCTC ATCAAAGGCT TACCTCATCT AAGTCTATCC	2040

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CTCTTTTCTT GGACTTATAC TTCTGAGAAC ATTTCCCTTA TGCCAGCGAT TATTTCCACC	2100
GTTATTCTGG TCTTTGGTGC TCTTCTTTTA GCCTTGCCCA TAGGGATTTT TGCTGGTTTT	2160
TATCTTGTGG AATATACAAA AAAAGATTCC CTTTGTGTTA AAATCATGCG ATTGGCCTCA	2220
GATACCTTAT CTGGGATTC TTCCATTGTT TTTGGTCTGT TTGGCATGCT CTCTTTTGT	2280
GTCTTCTTAG GTTTTCAATA CTCTCTGTTA TCAGGAATCT TAACCTCAGT TATCATGGTG	2340
TTGCCAGTCA TTATTCGCTC AACAGAAGAA GCCCTTTTAT CTGTTAGTGA TAGCATGCGT	2400
CAAGCAAGTT ATGGACTTGG GGCAGGTAAG TTACGGACTG TTTTTAGAAT TGTCTACCA	2460
GTGGCCATGC CAGGTATTTT AGCTGGAGTG ATACTAGCTA TTGGCCGTAT CGTTGGTGAA	2520
ACAGCTGCCC TCATGTATAC ATTAGGTACC TCTACCAATA CGCCAAGTAG TCTCATGTCT	2580
TCAGGCCGTT CTCTAGCCCT ACATATGTAT ATGCTGTCAA GTGAGGGGCT ACATGTCAAT	2640
GAAGCCTATG CTACCGCGT GATTTTGATT ATTACTGTTT TAATGATAAA TACTCTATCA	2700
AGCTTATTAT CTCGAAAAC TGTGAAAGGA GCTTCCTAGT ATGGGAACAT TTTCAGTCAG	2760
ACACCTAGAC TTATTTTACG GGGATTTTCA AGCCTTAAAA AATATTCGA TTCAATTACC	2820
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GATGGTTTTT CAACAGCCTA ATCCCTTTGC CATGTCTATC TATGATAACG TGGCTTATGG	3060
CCCAAGGACA CATGGTATTC GAGACAAAA ACAATTAGAT GCCTTAGTGG AGAAATCTTT	3120
AAAAGGGCA GCCATTTGGG AAGAAGTCAA AGATGATCTT AAAAAGAGTG CCATGTCCTT	3180
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TCTGTTAATG GATGAGCCGA CTTACGCCTT AGACCCATC TCCACTTTAA AAATTGAAGA	3300
CCTCATTCAG CAACTAAAA AGGATTATAC GATTATCATT GTTACCCATA ACATGCAACA	3360
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AGATACCGTT GACGTGTTTA CCAATCCAAA AGATCAGCGC ACAGAAGACT ATATTTTCAGG	3480
ACGGTTCGGA TAAGGAAGGA AAAACCTATG AGAAATCAAT TTGACTTAGA ATTGCATGAA	3540
TTAGAACAAT CCTTTTATAG ACTAGGGCAA CTGTCTCTG AAACAGCTTC AAAAGCCTTA	3600
CTGGCCTTAG CCTCCAAAGA CAAGGAGATG GCAGAGCTAA TTATCAATAA GGATCATGCT	3660
ATCAACCAAG GTCAAAGCGC TATCGAATTG ACCTGTGCCG GTTTGTTGGC CTTCAGCAG	3720
CCACAAGTGT CTGACCTTCG ATTTGTGATT AGCATCATGT CTCTTTGTTT AGACCTTGAA	3780

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CGTATGGGAG ACCATATGGC AGGCATTGCC AAAGCTGTTT TGCAACTAAA AGAAAATCAA	3840
CTAGCCCCTG ACGAAGAACA GTTACACCAA ATGGGTAAAT TATCCCTCAG CATGCTAGCC	3900
GATTTATTGG TTGCCTTTCC TTGACACCAA GCCTCAAAG CTATTAGTAT TGCTCAAAAA	3960
GATGAACAGA TTGACCAATA TTATTATGCC TTATCAAAG AAATCATTGG ACTTATGAAA	4020
GACCAAGAAA CCTCAATTCC CAATGGAAC CAATACCTTT ATATCATAGG GCATCTGGAA	4080
CGCTCGCTGA TTACATTGCT AACATTTGTG AACGCCTAGT CTACCTAGAA ACAGGAGAAC	4140
TAGTGGATTT GAATTAATTC AACTAATCCT TAAAAGAGAA GAGTACGATT AAGTACTCTT	4200
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TTTCAATTCT ATCGTGAACG AGGGAATGCT GAAAACTTTA TCAAAGAAAG GAAAGCAGGA	4320
TTCTTTGGGG ATAAGACAGA TAGTTCGACC ATGATTAAGA ATGAAGTACG TATGATGATG	4380
GGCTGTCTGG CTTATAATCT CTACCTCTTT TTAAAGCAGC TAGCTGGTGA TGAAGTAAAG	4440
TCCTTGACTA TCAAGCGTTT TCGACGTCTC TTCCTTCATA TTGCCGAAA ATATGTCTCT	4500
ACTGCTAGAC GACATATTCT CAAATTCTCA AGTCTATACG CCTATTCAA ACAGTTTCAA	4560
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GGGCAGGGGA AAACATGCCT AACAGAATAA GTCACCTTAT TTTAAAAATC GAGCATCAA	4680
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ACGTTACGCA ATATATTTTA ACTTTGTTAG TATTGGTCTG GATTCTCCAT TTTCAATTCT	5100
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CACTTTAACT AAAGACTAAG AGTTTATCCC TCGTCTCGG TTTTGTGTA TTTTCCACC	5340
ATACCCAGT AATGCAAGTG CAAAATCCCC TAGAATATGA TAGAATAAGA GAAAGAACTC	5400
TATCAAGGAG GAAATCATGG AAAACAAAC CGTCGCCGTC TTGGGGCCTG GTTCTTGGGG	5460
AACCGCCCTT TCACAAGTCT TAAATGACAA TGGACACGAG GTACGTATTT GGGGAAATCT	5520
TCCCAGCAA ATCAATGAAA TTAATACACA CCATACTAAT AAGCACTACT TTAAAGATGT	5580

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CGTTC TAGAC GAAATATCA TTGCCTACAC CGACTTAGCA GAAACATTGA AAGATGTGGA	5640
TGCGATTTTG TTTGTTGTCC CAACAAAAGT GACACGACTT GTTGCCGAGC AAGTTGCACA	5700
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TAAACGATTA TCAACCATTC TTGAAGAAGA AATTCCTGAA CATCTCCGTA GTGATATCGT	5820
CGTTGTTTCA GGGCCTAGTC ATGCAGAAGA GACCATTGTG CGTGACCTAA CTTTAATAAC	5880
TGCTGCTTCT AAAGATTTAC AAACAGCTCA ATACGTTTCT AAGCTATTTA GTAATCACTA	5940
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CGGAACCAAT ATCAAAGATG CCATTTATGA CATCATGAAC AATGAATTTA AAGCAGAAAA	6420
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TGCTCGTGAG TTCAAAGGGG CTCGTTACGA TGTCGGAGAC AAGTTTGGCT TCATGAAAAC	7260
ATCCATCGAC TACGCCCTCA AACACCCACA AGTCAAAGAT GATTTGAAGA ATTACCTCAT	7320

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CCAACCTGGA AAAGAATTGA CTGAGAAGGA ATAACAAAAT CATTTATATA AAGATTAGCC	7380
ACACATAAAT TAAGTAAATT CTCTACTTGA ATCTACCTAT TTAATAAAAA CTAATGAAAA	7440
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CTGTTGGAGT AGTCATGGTT AAATTAATC AACCGAGCCG AACATAAGTT GTTTAATTTT	7680
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TTCCTGGAAT CAGAACACTT CCAATAATGT TAACCACAAA AAGTGTGAGA TAGGATTGCC	9240
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CTGCAGTGAC CAACATTAGT AAAAATACCA AGGCCGTAC TAAGAGGAAG AAAGTCGTCA	9660
CAGGTAACG TCTATCAAAG ATTTCTTCA TCAATTAATA CCTCTGAAC AGGAATATCA	9720
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CCGCAGCCAC CCCAATAGCT AAGACTTCTT CCTTAGGACT CATTTGAGGG TGATGAAGAG	10320
CGTAGGGACT ATCGATACCT AGCCAAAACA TCACGCCATC AACCTTTGAA AGGAGATAAC	10380
CAAAGTCCTC GCCTGTCTATA GCAGGTTCTGA TATCAATCAA CTCGATTCCG TCTTTTTCGT	10440
CAAAGAAGTC CATCAGTTCA CGCGCCAAGG CTGGATTGTT CTCAACAGGT AGGTATCCAC	10500
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GTAAAAAAGC TGTGTCTGTG ATGACATTGT TGGTGGTTCC AGCTTGAAAA ACGCCGAAGG	10680
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CAAAGTAACT AGCCGCCACC AAGGCGTCAT TGGCTTCATG AGGAAAAGCT GCGTGGCCAC	10800
CTTTGCCTTT GAAACGGATC TTCACCTCGC AAGTTCCTGC AAAGAGTGTA TGAGTATTAG	10860

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TCGCAATCTG GCCGACTTTC AAATCTGGAC GAACATGGAG ACCATAGAAT TGATCTGGCA 10920
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 CAGGCTGAAA TAGAAAGAGC AGATTATTCT TGGGTGCTC CTC AAGGGCG CGCTCAAGAC 11040
 AGCCTAAGGC AATGGTCATA TGAAAATCAT GGACACAGGC ATGCATGCGA CCTTGGTGTT 11100
 GAGAAGCAAA AGGTAGACCT GTTGTTCGA CGATAGGCAG GCCATCAATA TCTGTCCGCC 11160
 AACCAATGGT TCGCTCCGGC TGA CTTCCT GCAGGTAGAC CAAAATCCCT GTCCGCCAAG 11220
 TACGAATTTG AACAAAATCC TTGCCCGTAG TCAATTTCTC AATCACATCC AGCAATAAG 11280
 CCTGAGTCTT GAACTCCTCC AAGCCAATCT CTGGAATCTG GTGTAAATCT CGTCTAGTCT 11340
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 TGGACTCCTT CGATAACCAC TGCATTAGCA CCGATAAGAA CATTGTCTCC GACACGGACT 11640
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 TTTTTTCCAA CGATGGCAGC GCCACCAAGG ATGGCACCCA TGTCATCAT GGTTCAGCA 11760
 CCGATTTT CAG CACCGATATT GATAACAGAT CCCATCATGA TAACAGCATT GTCACCAATT 11820
 TCCACCTGGT CACGGATAAT CGCACCTGGC TCGATACGAG CGTTGATAGC ACGCTTATCT 11880
 AGCAAAGGAA CTGAGAATT ACGAGCATCT TGCTCGACAA CATAATCTTG ATTTTCTACC 11940
 AAACCTTCAA GAAGCGGAGC CACATCCTTC CAGTCTCCGA ATAGGACATT TCCTAGTTTG 12000
 ACAACAGAGC TAGGCACAGC AGTTGCGAGT TGCCCCTCAA AGGTTACTTT GACACTGGTT 12060
 TTCTTTTCAG CATTGGCGAT AAATGGATA ATTTCTTGAG CGTTCATTTT TGTAGCAGTC 12120
 ATAGGTG 12127

(2) INFORMATION FOR SEQ ID NO: 149:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12566 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT GTTGATGTGA CAGGAATGAT GATAAATCAA CCAGTAGCTA GTCGCGAAGA 60
 GGTGACAGAG GCTTTGAGTC ACTTGGCGGT AGAGCACAAT AGTCTCATTG CTCGTCCAAT 120

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CGTTGAGCCA AATGAAGCTG GAGAAACACG CTTTACCTAT GCCACTTATG GTGAGGGAAA	180
GCTTCCAGAA GGTCTGACCA TTTCTCTCAA GGAGAGTGCA GAAACGAGTG ATTTATTAGG	240
GTCTTACTTG ATTGTATCAG GAAGTTTGA TGGAGTGAGC TTACAGACCA CCTTGAAAGA	300
GCTTGTTTAT CAAGGCTTTG TTTCGAATGG AGAAGATCCA TTTTCGATAG TCTTACTATT	360
GACGGCCACC CCTATGGTGC TACTGAGTTT AGCTATTTT CTGCTGACCT TTATGAGTCT	420
GACCCTGATT TATCGGATCA AATCCCTTCG TCAGGCAGGG ATTCGCTTAA TAGCTGGTGA	480
GAGCTTGTTT GGAGTTGCTC TCAGACCAGT GTTAGAAGAT GTGAGACAGC TTATCTGCTC	540
AGTGCTGGTA TCCAGTCTTT TGGGATTGGG GATTCTCTGG TATCAAGGTG CCTTGTTTAT	600
GGCAACGGTG CAACTGGTCA TCATTGCTCT TCTACTTTAT GGATTGACCT TGGCAGGGAT	660
TTCTACCTTA CTAAGTGTCG TCTATCTACT TGGTTTACAG GAAAATAGTC TGGTGGATCT	720
ATTGAAAGGG AAACCTCCCTC TCAAACGTAT GATGACATTG ATGATGGTGG GGCAACTCTT	780
AGCTGTATTG GTGGTCGGAT CGAGTGCGAC AGCTCTCCTA CCCCACTACC GTGAAATGCA	840
GGAAATGGAG AGAGCTAGCA ATAAATGGAG CCAGTCCTCA GACCGTTACC GTCTATCCTT	900
TGGTGGTCT AGTGCAATTG CCGATGAAGA AGGAACGCGT AAGGATAATC GTGAGTGGCA	960
GACATTTACT GAAGAACGGT TAGCCAATAC AGACTCTTTT TATATTATGA GCAATGTTGA	1020
CAATTTCTCA GATGGAGCAG AAGTGGACCT AGATGGCAAT CGTCTCAGTG ACTACACACC	1080
GTCAGGGAAT GTTATCTATG TCTCACCCTG CTATCTGATA GAAGAAAAGA TTACCGTTTC	1140
TTCAGAGTTT ATGGACAAGA TGCAAACTT GTCTGAGGGA GAGTTTGGGC TGATCTTGCC	1200
TGAGAGCTTG CGAGAGCAGT CTGTCTACTA CCAAGGATTG TTTACAGATT ACCTGCAAAA	1260
CTTTTCATCT GAAAGTGTAG AAGTGACGAG TCAGAAACAC TACCTCCAC AGGTAAGGCT	1320
AGCTTTTACA GAAACAGGAC AGGAACGTTT CCTCTATAAT GATGGGTACA AGACAACACG	1380
CCAGTACCTA AAAGATCCGA TTATTGTAGT TCTAACGCCG CAAGCGACTG GAACAAGACC	1440
TGTTGCAGGG ATGTTGTGGG GAACTACGGC TAATAGTGCC TTGAAACTAG ATCGATATGG	1500
AGACAGCATC ACAGCTCTAA AAGAGAAAGG TCTGTATCAC AAGGTTTCTT ACTTGGTAAA	1560
AAGCCAGCTA TTTTGTGCCA AGGTACTAAA TGACAAACGG GTGGAGTTT ACTCTCTCCT	1620
TATTGGGACG ATTTTGACCC TGTCTACGGC TATCTTGTTA TTTGATTCCA TGAATCTTCT	1680
CTATTTTGAG CAGTTCAGAC GGGAACTTAT GATTAAACGT CTTGCTGGTA TGACAACTCA	1740
TGAGCTTCAT GGCAAGTATT TACTGGCGCA AGGAGGAGTT CTCTTGCTTG GCCTAGTCCT	1800
ATCTAGTATT TTGACAAGAG ATGGTTTGAT TAGCGCTCTA GTGTAGCTT TGTTTACGCT	1860

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TAACGCCCTC	TTGATTTTAG	TAAGGCAGGA	CAAAAAAGAA	GAAGCTGGTA	GCATGGCAGT	1920
ATTGAAAGGA	AAATAAGATG	ATTGATATTC	AAGGATTGGA	AAAGAAATTT	AATGACCGCG	1980
CGATTTTCTC	TGGTTTGAAT	CTCAAGCTGG	AGAAGGGCAA	GGTTTATGCC	TTAATCGGAA	2040
AGAGTGGAAG	CGGAAAGACG	ACGCTGCTGA	ATATCTTGGG	AAAGCTAGAA	AAGATAGATG	2100
GTGGAAGGGT	TCTCTATCAG	GGGAAAGATT	TAAAAACCAT	TCCCACTCGT	GAGTATTTTC	2160
GAGACCAGAT	GGGCTATCTC	TTTCAAAATT	TCGGCCTCTT	AGAAAACCAA	TCAATCAAAG	2220
AAAATTTGGA	TTTGGGTTTT	GTGGTTCAGA	AAATCTCAAA	AGTAGAACGT	TTGGAAGGC	2280
AAGTGGGGGC	TTTAGAAAAA	GTAAATCTAG	GGTATTTGGA	TTTAGAACAA	AAAATCTATA	2340
CTTTATCTGG	GGGAGAGGCC	CAACGAGTTG	CCCTTGCTAA	GACTATTTTG	AAAAATCCAC	2400
CCTTGATTTT	GGCAGATGAA	CCAACAGCAG	CTCTTGATCC	TGAAAAATCA	GAGGAGGTTA	2460
TGAATCTCTT	GGTGGATTTG	AAAGATGAAA	ATCGAATTAT	CATCATTGCG	ACCCATAATC	2520
CCCTAGTCTG	GAATAAGGCT	GATGAAATCA	TTGATATGAG	GAAACTTGCT	CATGTGTGAA	2580
AAAATCCGTA	TTGCGAGGGT	ATCTGATTAT	CCTAGTGCCA	GAGGTGGTTT	AGAAGATATC	2640
CTCATCATGG	AAAATATGAC	CAATCATCTC	CTTTTGGTTC	AAATCCGAGT	GCATGGCTAT	2700
TTGCTTGATT	TTGCTAGTAT	TGAAGGGCAA	AGGCAAAAGC	ATTATCGTTT	GAAAAATTTA	2760
CCTCAGACGG	TTGAACTGAC	AGTGGATGAT	GTGGAGGAGG	ATGTGGATTT	GACCCTACCT	2820
GAAAATCGAA	GTTATCAAGA	AGCTGATTTT	TTTGAACGCA	TGTTTCGAGA	GAAGTCTTAA	2880
GGCCACTTTT	AAAGATTTCC	AAGACTATCT	TTCTTCATGA	GGAAAGATAG	TTTTTTGGTA	2940
TGATTTTCAT	TCCCAAAATA	CAAGGGGAAT	GTGTTACAAAT	AGTAGTAACA	GATAATAGAA	3000
AAGAGAATAG	ATGAGAATTG	CAGATTATAG	CGTGACCAAG	GCAGTGCTGG	AGCGTCACGG	3060
TTTTACCTTT	AAAAAGTCCT	TTGGGCAAAA	TTTTTTGACG	GATACCAATA	TCCTTCAAAA	3120
AATTGTGGAT	ACGGCTGAAA	TTGATGATCA	GGTCAATGTC	ATCGAAATCG	GGCCAGGTAT	3180
TGGTGCCTTG	ACAGAAATTT	TGGCTGAGCG	TGCAGCCCAA	GTCTGGCTTT	TTGAGATTGA	3240
CCACCGTTTG	GTGCCAATTT	TGGCAGATAC	CCTGCGTGAT	TTTGATAATG	TGACCGTAGT	3300
TAACGAAGAT	ATTCTCAAGG	TTGATTTGGC	GCAACATATC	CAGAATTTTA	AAAATCCTGA	3360
CCTGCCAATC	AAGGTAGTGG	CTAATTTGCC	TTACTACATC	ACGACGCCTA	TTCTCATGCA	3420
CTTGATTGAG	AGTGGCATTC	CTTTTGTGA	GTTTGTGGTC	ATGATGCAGA	AAGAAGTAGC	3480
GGACCGCATT	TCAGCCCAGC	CTAACACCAA	GGCTTACGGT	AGCTTGTCTA	TCGCCGTGCA	3540
GTATTACATG	ACAGCCAAGG	TTGCCTTTAT	CGTGCCTCGT	ACGGTCTTTG	TGCCAGCGCC	3600
AAATGTGGAT	TCAGCCATCT	TGAAAATGGT	GCGTCGTCCA	GAGCCAGCCG	TAGCAGTAGA	3660

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AGATGAGAAC TTTTCTTTA AGGTTTCCAA GGCTAGTTT ACCCATCGCC GCAAGACCTT	3720
GTGGAATAAC TTGACAGGTT ACTTTGGTAA GACTGAAGAG GTCAAGGACA AGCTGACCAA	3780
GGCTTTGGAC CAGGCAGGCT TGTACCAAG TGTGCGTGGG GAAGCTCTCA GCTTGGCAGA	3840
ATTTGCCGGT CTAGCAGACG CACTTAAAGG GCAAGGACTC TAAGATGCAG GGACAAATCA	3900
TTAAAGCCTT GGCAGGTTTC TACTATGTGG AGAGTGATGG CCAGGTTTAT CAAACACGCG	3960
CGCGTGGGAA TTTCCGTA AAAGGCCATA CCCCTTATGT TGGGGACTGG GTAGATTTCT	4020
CTGCCGAGGA AAATTCAGAA GGCTATATCC TCAAAATTCA CGAACGGAAA AACAGTCTGG	4080
TTCTGCCGCC TATTGTCAAT ATCGATCAAG CTGTAGTAAT CATGTCCGTC AAGGAACCTG	4140
ATTTTAACAG CAATTTGCTG GATCGTTTCT TGGTCTTTT GGAGCACAAG GGCATCCATC	4200
CCATTGTCTA TATTTCAAA ATGGATTGTG TGAAGATAG GGGAGAACTG GATTTTACC	4260
AGCAGACCTA TGGTGACATC GGCTATGACT TTGTGACCAG TAAAGAGGAA CTCCTGTCTT	4320
TGTTAACAGG CAAGGTTACG GTCTTTATGG GGCAGACAGG TGTTGGGAAG TCAACTCTTC	4380
TCAATAAAT CGCACCAGAC CTCAATCTTG AAACGGGAGA AATTTCAGAC AGTCTAGGTC	4440
GCGGTCGCCA TACCACTCGA GCTGTTAGTT TTTACAATCT CAACGGGGGT AAAATCGCAG	4500
ATACACCAGG ATTTTCATCC TTGGACTATG AAGTATCAAG GGCTGAAGAC CTCAATCAGG	4560
CTTTCCAGG GATTGCTACT GTTAGCCGAG ATTGTAAGTT CCGTACTGT ACCCATACCC	4620
ATGAGCCGTC TTGTGCCGTC AAACCAGCTG TTGAAGAGGG TGTTATTGCA ACCTTCCGTT	4680
TTGACAATTA CCTGCAATTC CTTAGTGAAA TTGAAAATCG TAGAGAAACC TATAAAAAAG	4740
TCAGCAAAAA AATTCCAAAA TAAGGAGAAA CCTATGTCTC AATACAAGAT TGCTCCGTCA	4800
ATTCTGGCAG CAGATTATGC CAACTTTGAA CGTGAAATCA AACGTCTAGA AGCAACTGGG	4860
GCAGAATATG CCCATATCGA TATCATGGAC AGTCATTTTG TACCGCAAAT CAGTTTGGT	4920
GCAGGTGTGG TCGAGAGCCT TCGTCCTCAT AGTAAGATGG TTTTCGATTG CCACTTGATG	4980
GTGTCAAACC CTGAGCATCA TCTGGAAGAT TTTGCGCGTG CAGGTGCAGA CATCATCAGT	5040
ATCCATGTAG AAGCAACGCC TCATATTTCAT GGCGCCCTCC AAAAAATTCTG TTCACTCGGA	5100
GTAAAGCCTT CAGTCGTTAT CAATCCTGGC ACATCAGTTG AAGCCATCAA GCACGTCCTT	5160
CATCTAGTTG ACCAAGTTT AGTCATGACG GTTAATCCAG GTTTTGGTGG GCAAGCCTTT	5220
CTGCCAGAAA CCAATGGATAA GGTCCGTGAG TTGTTGCTC TTCGTGAGGA AAAAGGTTTG	5280
AACTTTGAAA TCGAAGTGGA TGGTGGGATT GATGACCAAA CTATTGCTCA AGCCAAAGAA	5340
GCCGGTGCGA CTGTTTTGT AGCAGGTTCC TATGCTTTTA AGGGAGAAGT CAATGAGCGA	5400

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GTACAACTC TCAGAAAACA ACTGGACTAG GGTTCAGTT TTTGCAGGCG GAAACCGCG	5460
TCATTATCGG ACAGATTTTG ATGCTTTTGT TGGGTGGAT CGAGGCTCGC TCTGGGTCTT	5520
GGAAGAAGAC TTACCTCTTG CTCTAGCAGT CGGAGATTTT GATTCTGTGA CGGAAGAAGA	5580
GCGACAGGTG ATTCAAAAAG GTGCCAGTA TTTGTCCAA GCACGACCAG AAAAGGATGA	5640
TACAGATCTG GAATTGGCTC TCTTAACCAT CTTTGAACAA AATCCTCAGG CTCAGGTCAC	5700
TATTTTCGGT GCCTTGGGTG GCCGTATTGA CCATATGTTG GCCAATGTCT TTCTGCCTAG	5760
CAATCCTAAG TTGGCACCTT ATATGCATCA AATAGAAAT GAGGATGGGC AAAACTTGAT	5820
TACTTATGT CCAGAAGGAA TCAGTCAGCT AGAACCTCGT TCAGACTACG ACTATCTAGC	5880
CTTTATGCCA GTTCGGGATA GCCAGCTGAC TATTCTTGA GCCAAGTATG AGTTGACAGA	5940
GGAAATTTT TTCTTTAAAA AAGTGTACGC TTCTAACGAA TATATAGATA GGGAAGTGTC	6000
GGTAACCTGC CCAGATGGTT ATGTGGTCGT ACTGCATAGC AAGGACAGGA GGTAGGATGG	6060
AAAGTTTACT TATCTATTA TTAATTGCCA ATCTAGCTGG TCTCTTCTG ATTTGGCAAA	6120
GGCAGGATAG GCAGGAGAAA CACTTAAGTA AGAGCTTGA GGATCAGGCA GATCATTTGT	6180
CAGACCAGTT GGATTACCGC TTTGACCAAG CCAGACAAGC CAGCCAGTTA GACCAAAAAG	6240
ATTTGGAAGT GGTGTGCAGC GACCGTTTGC AAGAAGTGGC GATTGAATTG CACCAAGGTC	6300
TGACCCAAGT CCGTCAAGAA ATGACAGATA ATCTCCTCCA AACTAGAGAC AAGACAGACC	6360
AACGTCTCCA AGCCTTGCGAG GAATCAAAATG AGCAACGTTT GGAACAAATG CGCCAGACGG	6420
TCGAGGAAAA ACTAGAAAAG ACCTGCGAGA CACGCTTACA GGCTTCCTTT GAGACAGTTT	6480
CTAAACAACCT GGAGTCTGTC AATCGTGGCC TTGGAGAAAT GCAGACAGTT GCCCGTGATG	6540
TCGGAGCTCT TAACAAGGTT CTCTCTGGAA CCAAGACCGG AGGGATTCTG GGAGAATTGC	6600
AACTGGGGCA AATTATTGAA GACATCATGA CACCTGCCCA GTACGAACGA GAATACGCAA	6660
CGGTGAAAA CTCTAGTGAA CGAGTGGAGT ATGCCATCAA GTTACCGGA CAAGGCGACC	6720
AAGAATACGT CTATCTGCCA ATTGACTCTA AGTTTCCACT GGCAGATTAT TACCGCTTGG	6780
AAGAAGCCTA TGAGACAGGT GACAAGGATG AGATTGAACG CTGTCGTAAG TCACTCCTAG	6840
CAAGCGTCAA GCGCTTTGCT AGGGATATTA GGAACAAGTA CATAGCACCA CCTCGGACGA	6900
CCAATTTTGG AGTTTGTGTT GTTCCGACAG AAGGTCTCTA CTCAGAAATC GTCCGCAATC	6960
CGGTCTTCTT TGATGATTG AGACGGGAAG AACAGATTAT TGTTCAGGA CCAAGTACCC	7020
TATCAGCCCT TCTTAACTCC CTATCAGTTG GTTCAAGAC CCTTAATATC CAAAAGAGTG	7080
CCGACCATAT CAGCAAGACT CTTGCCAGTG TCAAGACCGA GTTGGCAAG TTTGGTGTA	7140
TTCTGGTCAA GGCACAAAAA CATCTCCAAC ATGCCTCTGG CAATATTGAT GAATTATTAA	7200

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ACCGTCGTAC CATAGCTATC GAGCGGACGC TCCGTCACAT TGAGTTGTCA GAAGGTGAGC	7260
CTGCGCTTGA TCTACTCCAT TTTCAAGAAA ATGAGGAAGA ATATGAAGAT TAGTCACATG	7320
AAAAAAGATG AGTTATTTGA AGGCTTTTAC CTAATCAAAT CAGCTGACCT GAGGCAAAC	7380
CGAGCTGGGA AAAACTACCT AGCCTTTACC TTCCAAGATG ATAGTGGCGA GATTGATGGG	7440
AAGCTCTGGG ATGCCCAACC TCATAACATT GAGGCCTTTA CCGCAGGTAA GGTGTGCCAC	7500
ATGAAAGGAC GCCGAGAAGT TTATAACAAT ACCCCTCAAG TCAATCAAAT TACTCTCCGC	7560
CTGCCTCAAG CTGGTGAACC CAATGACCCA GCTGATTTC AAGTCAAGTC ACCAGTTGAT	7620
GTCAAGGAAA TTCGTGACTA CATGTCGCAA ATGATTTTCA AAATTGAAAA TCCTGTCTGG	7680
CAACGGATTG TCCGAAATCT CTACACCAAG TATGATAAGG AATTCTACTC CTATCCAGCT	7740
GCCAAGACCA ACCACCATGC CTTTGAACG GGCTTGGCCT ATCATACGGC GACCATGGTG	7800
CGTTTGGCAG ACGCTATTAG CGAAGTTTAT CCTCAGCTCA ATAAGAGCCT GCTCTATGCG	7860
GGGATTATGT TGCATGACTT AGCTAAGGTC ATCGAGTTGA CGGGGCCAGA CCAGACAGAG	7920
TACACAGTGC GAGGTAATCT TCTTGGACAT ATCGCTCTCA TTGATAGCGA AATTACCAAG	7980
ACAGTTATGG AACTCGGCAT CGATGATACC AAGGAAGAAG TCGTTTTGCT TCGTCATGTC	8040
ATCCTCAGTC ACCACGGCTT GCTTGAGTAT GGAAGCCCAG TCCGTCCACG CATTATGGAA	8100
GCAGAGATTA TCCATATGAT TGACAATCTG GATGCAAGCA TGATGATGAT GTCAACAGCT	8160
CTTGCTTTGG TGGATAAAGG AGAGATGACC AATAAAATCT TCGCTATGGA TAATCGTTCC	8220
TTCTATAAAC CAGATTTAGA TTAATAATTT AAGAAAAATG AGCATTTTTT AGGATAAGAA	8280
TGTTCTTTTT TTTATGTGAA TATGGTATAA TAAGTAAAG AAAAAATGA ATACTCTTCG	8340
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TCGTCAATTAT CAAACGCGCC TTTGAGGAAA TTGAAATCGG TCATATCCAG ACAGTGACTG	8700
GGGCTGGCGG AGGTGTCATC TTCACACCGT CTATTTTCAG TCAGGATGCT AAGGAAATGG	8760
TTGAAGACTT GCGTACCAAG TTGTCAGAAA GTGACCGTAT CTTGCCAGGT GGTATATCT	8820
ATCTGTCTGA TTTGCTTAGC ACACCAGCCA TCTTGAAAAA TATTGGTCGT ATTATGCCA	8880
AAAGCTTTAT GGACCAAAAA ATTGACGCGG TTATGACCGT AGCAACTAAG GGTGTGCCAC	8940

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TTGCAAAATGC AGTTGCCAAT GTCCTCAATG TCTCTTTTGT CATTGTGCGC CGTGACCTGA	9000
AAATTACCGA AGGTTCAACT GTTAGCGTCA ACTATGTTTC AGGTTCAAGT GGTGACCGTA	9060
TCGAGAAAAT GTTCCTTTCA AAACGTAGTC TTAAGGCAGG CAGCCGTGTC TTGATTGTGG	9120
ATGACTTCTT GAAAGGTGGC GGAACGGTCA ATGGTATGAT TAGTCTCTTG CGCGAGTTCG	9180
ACTCAGAACT GGCAGGTGTA GCGGTCTTTG CGGACAATGC CCAAGAAGAA CGTGAAAAGC	9240
AGTTTGACTA CAAGTCACTC TTGAAGGTAA CCAATATTGA TGTCAGAAGC CAAGCCATCG	9300
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TCTTTGAACT GGCTGTTGAA ATCAAGGAAA AGTTGGGCAT TTCGCTAGAC TTTATCAATC	10080
TTTCTGGCGG TATTGGTGTT AATTATCATC CAGACCAGGA GCCGAACGAT ATCGCCTTGA	10140
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TCAAGATTTT CACCGAATTG GGTGCTTTTA TGCTGGCACC TCACGGTGCT CTAGTCACAA	10260
GAGTCACTCA TAAGAAGGAA ACCTACCGTA CCTATCTAGG TGTGGATGCC TCAGCAGTCA	10320
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ATGGACCAGC TGAAGTGGA GATGTGGTCG GTTCACTCTG TGAAAACAAT GATAAATTG	10440
CAGTTAATCG CGAACTGCCT CATACAGAAA TCGGTGATTT GCTGGTCATT CATGATACAG	10500
GTGCCCACGG ATTTTCAATG GGCTACCACT ATAATGCCAA ATTACGTTCT GCGGAAATCC	10560
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TTGCAACCTT ATATGGCTTC GATTTTGAAG AATAATCTGA TAATAGATTG AAAATGAAAT	10680
TGAAAAACAG ATTGCTTTCT AAAAAATAGG CAAAAATCTT GTTTTTCCTT CAAGTCGTGA	10740

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TATAATAAAA CTATAAACG TTTTCAAGGA AGGTAACGAT ATGTCTGAAG AAACAATTGA	10800
TTATGGACAA GTGACAGGAA TGGTGCATTC GACAGAAAGC TTTGGGTGAG TAGATGGGCC	10860
TGGTATTGCG TTTATTGTCT TTTTGCAGGG CTGTCACATG CGTTGCCAGT ATTGCCACAA	10920
CCCAGACACT TGGGCTATGG AGTCCAATAA GTCACGTGAA CGGACGGTAG ATGATGTCTT	10980
GACAGAGGCC TTGCGCTACC GTGGTTTCTG GGGAAATAAG GGTGGGATTA CAGTCAGTGG	11040
AGGAGAAGCT CTCTGCAGA TTGATTTCTT GATTGCTCTC TTCACCAAGG CTAAGGAACA	11100
AGGAATCCAC TGTACCTTGG ACACCTGTGC TCTTCTTTC CGTAATAAAC CACGTTACCT	11160
TGAGAAGTTT GACAACTCA TGGCTGTGAC TGACTTGGTT CTTTGGGATA TCAAGGAAAT	11220
CAACGAAGAA CAGCACAAGA TTGTCACTAG CCAACCAAT AAAAATATCT TGGCTTGTGC	11280
CCAGTATCTA TCAGATATTG GAAAACCTGT CTGGATTGCG CACGTGCTAG TTCCAGGATT	11340
GACAGACAGA GATGATGACT TGATTGAACT TGGTAAGTTC GTCAAGACCC TCAAAAATGT	11400
TGATAAGTTT GAAATTCTAC CTTATCACAC CATGGGTGAG TTCAAGTGGC GTGAACTTGG	11460
AATTCATAT TCCCTCGAAG GAGTCAAACC ACCAACAGCA GATCGCGTCA AGAACGCTAA	11520
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TGTGATAGCA GTTGGTTGTT CAGGGGTAAC GTCTTTTCTT CCACTTGGTT TAGAGAAAGC	11760
ACTTGCTTTT GGTGGGTCTT TGGCTAGTTC TTCACGACT TTTTTCGAA GTTTTGGACG	11820
AACGATATAG TTGACGATAA ACTGTTGGAG AATCATCATG AAACCACCGA CAACCCAGTA	11880
AAGTGTGACA CTAGCTGGT AGAAGAGGGA GAAGACGACG ATCATGAGTG GGCTCATGTA	11940
AATCATTTTC TTGATTGTT CTCTTGCAT TTCATCTTCT ACTCCGTGAA GTGAAAGGAG	12000
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AGGAATGCCT AGGTAGCTTG CTTGAGCAAC CCCTTCAGTA TGTGGGCGAG CAAAGTAGAT	12120
AGCAGAGAAG AAAGGCATTT GAAGGAGGAT AGGGAAACAT CCTACACCGC CAAACATGCT	12180
GATACCGTGC TCTTTTGTAG CAGCAAAGAG AGCTTGTGG GCTTCGAGTT TTTCTTCTTG	12240
AGTAGTCGCT TCTTTGAGAC GCGTTTGGT TGGCTCAAG ACGTGCTTGA GGGCGTTCAT	12300
CTTTTCAGAG TGAAGCGTTG CCTTCCATGA TTGGTAGATA CCAAGTGGTA AGATAATCAA	12360
GCGTACGATA ATGGTTACGA TAATGATAGC GACACCAAAG CCTAGACCTT TATCAGTAGC	12420
GAAGTACTTG ATGGCTTCAG CCATAGGCGC TCCGATCGTA TTCCAAATAA ATCCTGTTGG	12480

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CTGACCTGTG GTTTTATCGA CATTGACACA GCCAGTCAAG ACAAGCAACA TAGCCACTCC 12540
CATAGCCGAG AGTGCAAAAT CGGGGT 12566

(2) INFORMATION FOR SEQ ID NO: 150:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5238 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 150:

TGACACTCTG TAGGATTGTC GTTAATTGAT TGCTCGTACT CTCTACAATA ACCACCAAAG 60
TAAAAACGAC ATAGAAAGAT AGCATCAGCT GTAGCCATAG CGCCTTTGAC ACCTTCTGGA 120
TGATTATGAG TTACCTCTGC AGAAAGACTC GTAAGTCCTC TAGATGATGG CCATATACCA 180
GTTTTCGCAT AAAAACCACA GTCCATGATC CAAGCACATG GAGAAATACG CATAGCTGAT 240
CCATTCCCAA AGCTATTATA AGGCTCACGG TTATCGTGT TTAGCCATGC ATTAAACCGA 300
GCACCGTAAT CAGCATTCGG ATACATTCTG CCATATTCTT TCATCGCGTC AATGAAGTCA 360
TCTTTTGTG CACCATTTCAT AATTGCTTCT GCAACAGCAC AGGTCATAAC CGTGTCATCT 420
GTAAAAAAGC AGTCCTTCCG AAATAAAGGA AAGTCCTTTG TTTTGATATT GTTCCATTCTG 480
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TTTGATGCTT TTTATATTGG TTATCTACCA TATTTATTTT AGAAAATAAC ATCCTGTTGG 600
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TGAAAAATGA TTGATTTTAA AGGAGATAGG CCATAATTTC CCAATGCATA ACCATCATTT 720
ACTTCAACAA CAAGTGTTCT GCCATCGCGA GTAACACCGA TATCTAGTCC ATAAGCTATT 780
GGCGCATCTT TCCAACATGA TATCGCTTCA TCAATTACAC TTGCATCAAA TTGTGCATGA 840
TAATCACTG TATAGGGTCG AACATCTAAT ACGCGACCAT CTAACACAAA ACAACGCCAT 900
TCAGCTATGA ATTCTACAAC CTCACTAATC CATATAGGAT AGTCGAAAGG TAGACCAATA 960
CCTATTAAAT CATGGGTTC ATTAACTAAT CTCCAGTAA AGACTTTTGA ACCAGCTTTA 1020
GGCTTAATAA ATTTTCCCCA ATTATCAGGT ATATTCACAA TCTCTCCTAA AATACCAGCA 1080
TAAATCTTTC GACCATAAAA CTCTTTAAGC TCAATAGGAT AGTCATGAAC CGGAACGTTT 1140
AAGCCCATCA TTTTGTAGTA TGCTCTAGTC TCCATTATAT AATCTACAAC TATATCTTCA 1200
CTTGTTAACT CTTTATTTTC AGAAAAAGAT TGATATAAAA TAACTTCTTC TCCTTGTAAG 1260
TAGGCACCTA CTTGAGCATT GTATTTATTA ATTGAAACCT CACTTGGTAA TTTACTTTGT 1320

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CTAATATAAA CAACCATTTT ATCACTCCTA TATCACTAGT GTTACACCAA TTTGTAAAAA	1380
ATAATAGCAA TTTTGCTCTT ATTTTTTTGA GTAAATAGCC CCCATAATAT CATCGAAATA	1440
ATCAACGGTA TTTAGGAGTA ATTCAATAAC CTGGGACTTT GTTAGTCGCA TTCCCCTTCT	1500
ATCTCTAGCA TCTTCTACTA AATTTTCAAG TTTCTCTAGA TTTTATCAT CCAAGCTAAT	1560
CATTATTCTA TTTTATCGG TTGCCATTTT CATCACCTCA AGTTAATTCT ATCACAGGTG	1620
TAACACTAGT GTCAACTGGC TTTTATAATA CATTAGTTTA AAAGTGGAGA GGATTTTTAA	1680
CACAGTAACT TTAATCTTT GGTATTAAAA AATTTTCACA ATATTTATAG AAATAAATC	1740
TGTCTCAAA CAGTTATCAA ATCTAGTATA AATTATGAGC GGCTACTCTA ATACTTTCCC	1800
TCTAAACAAG AAAAGACTT ACACTCAAGG GTTTTCTTCC CCCCTTCGT TATAACGTTT	1860
TGACTCTTT ACTAGCAAAG GTATATACTC ACAAGGAACT TTGGTTGACT ATTGAATCTC	1920
TCCAACCTCT TCTTTAACAT ATCCTTCTAC ATCTTCAATC TCTACAAACA TTGGGTCTAA	1980
GTGACACAAG AAATGCCAAA CTTCGATCCC TTTTTTCTG TAAAGAATCG CTTCACCGTC	2040
TTCACTTCCG AAAAGCTTC TGTCGATTTT ATATCCGCGG CTTTCTAAGA AGTCTTTTGC	2100
TTTACGATAG TTCGTTTCTC TTGTTTCGAC ATAGGCTTTA ACTTCATGGT TGTAAACGAC	2160
ATATGCATCA ATTTTGAAT ATCCTTCGAT CACTCTATCA TTTTGAGGG ATAAATTGA	2220
AATCTCTTC CAAATAATGT TTACATTTTC CTCAGGATCG AACATAAAT TAGATAAAGG	2280
AACAATATTT CCGTTAAAA TAATTTCCAT ATAATCCGGT ATGTTTTTAG GATTAAATA	2340
CTCCACTTCA AAACCATCTT CTGTTCCAG AGTGTATCCC GGGATTGAG CTACAAAGGC	2400
TTTCCCATCT TCTATGGAAT CAAATGCTAC TAAATCTTA GAATAATCAT TTTGGTACAA	2460
TTCCAATATA ACCATCGATA ATCTCTCCAT TTTCAATTATC AGGCTAATGT AAATAAGCAC	2520
GTCACTGAC CAATTCAGGC TCTCTGTATC ATCTCATCAT ATTCCTACT TACTTTACGA	2580
GTCTTATACC CAGAACACAC CTTATCGACC TTCGGTCTCA CCTCGTCGCA TTGGCTGAAC	2640
ATCTACTTTT ACTTTGCTGA TGCTTCAACT CGTACAAGCA GTGATACCGC CTCAGCGTGA	2700
TGCGTCAGTG GGACTCAAAA GGTTCGGGGA ACCTTTTGAG GATTAACTAC GTTCTCTAA	2760
TAAACTTACA CATTCAACTT GTTCATCATT GTCCAAACCT ATGTTGAGAT TTTCTTCTAT	2820
AATTGGTAGC TTAAGGTAA TGGATTTTAG CCATTGCTCG TTAGATTGTT TTTCTTCATA	2880
AACCTGAATT TCAGAAATCA AAGCTGAAAT TAACTGCCTA CGCTCTACAT CATTATGAC	2940
TTTATAGAGC TTATCAAAAT AGATCAGAAC CTTATATATG TTATCTCCTG TAAGCTTTTC	3000
AGCTTCAATA GTCTGTTTCT TTGCTTTCGC ATCAATTAGT GATGATTCTA ATTCATCTAG	3060

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TTTGTACATAC ATACGATATA GTCTATCATC TAAATCCTGT TTCCTTCTCT TATAATGCTT	3120
ATCTTCAACA TCTAAATTAT CTATTTCCCTC AATTAGCTTA AACTTTGTAG AATGACTCTT	3180
TCTCAATTCC TTTTGGTAAT TATCTATTTT TTTTCTATT TCAGAGGTAT CCACCTTCAT	3240
GTGATTTTT TCTTGCATCA TAGAAGCAA TTTCCGATTA CTTACTATCT TGACAATCAC	3300
CTCTGCAACA GCATCATCTA ACAATTCTTC TCTAATTGTC TTAAGTGAATG TACACTTATT	3360
ACCTCTTATC ATCTGCCTAT GGTACAACC ATAGTAATAA AAATCTTTAT ACTTTGTGCC	3420
ATCTTCTTTT TTCTTGATAC ACTTGTTCCT AAACATTCCC ACTCCACATA TCGGGCATT	3480
TACAATTCCA GAAAGCAAGT GTGTGCGTGT ATCTTTTCTT TTATTACAT GCTCATATTT	3540
CTTTGCTTGA GATTTTAGCT TAACCTGAGC AGCTTGCCAA ACTTCATCGG AAACATAGC	3600
TTTATGTATC CCTTCAGATA TTAGATATTC ATCTTGTTC ACCTGCTTAT ATTCAATTTCT	3660
TGTACCATGA ACTTTTCTA AAGTTCTTCT TCCAAATGCT ATTTTCCCAT TATATACAGG	3720
ATTCTTTAAT ATCTTTCTTA TAAGACCTGC ATCAAACAAA GGATTCTTAC CATTCGTCT	3780
TGGGATTTTT CTAATCCAT GATTTCTTAA GTATTTAGAT ATCCCATGG CTCCTATCGT	3840
AGTATTTACA TACTGGTCGA AAATCGTCTT TATTGCAACT GCCTCTTCTT CATTTATAAA	3900
CAGCTTGCCG TCTTCAAGTT TATATCCATA CGGAGCAAAG CCACCATTCC ATTTTCCTTC	3960
CCCTGCTTTT TGAATGCGAC CTTCCATTGT TTGAATACTG ATGTTTCTC TTTCTATTTT	4020
AGCCACAGCT GATAAACAG AAATCATTAG TTTCCCAGCA TCTTTAGATG AATCAATGCC	4080
ATCTTCAACG CAGATAAGAT TAACTCCATA ATCCTGCATT ATATGAAAGT TAGAAAGAAC	4140
ATCAGCGGCA TTTCTTGCAA ATCTTGATAA CTTAAACACA AGAACAAAAG ATACTCCATC	4200
TTTTCAGAT TTTATATCTT CCATCATTCG ATTGAACTGT ATTCTACCTT CAATAGACTT	4260
GTCAGACTTC CCGGCATCTT CATACTCTCC AACAATTCA TAATCGTTGT AAATAGCAAA	4320
AGCTTTCATT CGTGATTTTT GTGCCTCTAA CGAATACCCC TCTATCTGTA TTGACGTAGA	4380
TACTCGTGTA TAGAGGTATA CTTTTATTTT TTCTTTTGAC ATAGTATTAA CCTCAATATA	4440
ATTTTCTAT ATCATATATA ATTTTTTTAA TTTAAGTTTG GACTATCATT TCAAGTATAT	4500
TATAACACTT TTATTAGTCC GTCTCAATTT GTGTTTTTGC CATGTCAAAA CTATTTTCA	4560
TCTCTTGATT TTTTGCTGGC GTTGGATCGG GTAGATTATC TAAATCTAAA GCACCAGCAT	4620
ATTTTGCAAT CAGATTTGCT ATTAAATCAG CCAATCCATT CCAGTCATTG TCCAATATAT	4680
ACCTCCTCTA AAGTTTTATA TCTAATAATT ATTTGTTTAA TTAAGTTTTT TGACATTGAC	4740
AAGTGCTTTG GATTAGCAAC ATAGGAATCT CACTCCGCC TCTATTCCGG ATGAGCCGGC	4800
TTCAACCTTA GAAGTATCAT TACCCTCATT TTCTTCATAG CGGATAGGGT ATCCCTCCCT	4860

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ATATTCAAAC TCTTACTTAT CGTCACTTT CTTTTTGCTT AGCAGAACTT TTTTGGCCGA	4920
ATTATTTCAGC CGAAAGATCT TGACGGATAG GTTATTACGC TCCAAAAATA ATTAACGTCT	4980
TGTCTTGGTC TATTCAATTG TTAAGGTTCA AAATTTATCG AGAGTTATTA ATCTTTTAA	5040
AAATTGACCA TCAGAAAATA TTTATCTTGA TGTAACAAAA TTCTATAAAT TACCCTCTTA	5100
TACTTAACAG TGAAAAGAAG TCTTTCTTGG TAACCAATTT TGAAATAGAA TTTGCTTATA	5160
TAAAAAGGTC CAATTCCCAC TGCATAAATA GCAGTGAAAA TTAGACCCTC TTGGTAACTG	5220
TCATCTAAAA GTCTTCTA	5238

(2) INFORMATION FOR SEQ ID NO: 151:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13425 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 151:

GACGATTTAC GAAGAATCGA ACAAGAACCT GCTCCTATCA ATTCCCAACC TCTATCTCTA	60
AAATCTTGCA GTTCATGCTT ATACTTTTTT AAGAAATCTA GAATCATAGA TACGGTAGAT	120
GACATCGTCT GGTGACATT GGTCAAATA GAACAAACCA AAACGACTCG TTCTATACCT	180
CCAACCTTTC AAATGCATCT CATGTAAATG TTCTTCTTCC TTGTCCAAAT CAACAATGGT	240
GAAAAATCCGA AATTCTACTC TGCTATTCTAT TGTCTTACCC CAAAATTAGA AAACATGCCT	300
GGCGTTATTT ATTAGATAAT TCTTTCCACT TTTGACTCAA TCTCCAAAA ATATAAGAAA	360
TCTGAATCGC AAAAATATC AATAAAACCC AATCTATTAT GAAAATCAAA AACACTTTCC	420
AACTGAAAGA ACTACCTCCA GTGACAAACT TTGAGAAAA CGGTAGTAGA GCTAAAAAGA	480
GAAATAAAAT AGGAAGCATC CGCATTTGTT AAATCCGTTT GGCATAAAAA AATCTTTATT	540
TAAACGAAAA TATTATGGCA AAATTTACGC CAGTTTTTGA ACGGCTGATG TAGATATTTT	600
ATACTTTCAA AATGTTTAAA TGTGATTATT TATTTTGTAA AAATAGATCA CCAGCCCGAC	660
TGAAAGTGCT TATAGAATGA TAATAAGTCG CCTGCCGAAA ACAGCGAAAA ATAGCGGTGT	720
TATGCGGAGA TAATCTGACG CGATGCGAAA GTATATTGCA TACTTATTTT CAACAATTTA	780
GCAGAGTATT TTTATAAGTG TGATATAATA GAAGTATAAT TTGTTCTGAT AGTTTATTTT	840
ATGGAGAAGT AGATTTTTAG AATGCGGAGG GTTCAATATG GTTGAGTTTA TAAAGTCTAA	900
GAAAGAAATG AGTGAGGAGG ATATTAAAGC AAATTCATC ACTCCTGCTA TTGTATCCAA	960

1010

AGGATGGA	AATGGTGAGC	ATATCGCTTA	CGAAGAATAC	TTCACGTGATG	GTCGAATTGA	1020
AGTTAGAGGA	GATAAGGCTC	GTCTGTAAGA	AGGAAAAAAA	TCAGACTATT	CACTGTATTA	1080
CCAATTTGGA	ACTCGAATTG	CAATTGTTGA	GGCAAAGGAT	AATAAACACA	GCGTTTCGAGC	1140
AGGATTACAA	CAAGCTATTG	AATATGGAGA	GATTTTAGAT	GTTCCATTTC	TTTATTCCTC	1200
GAATGGTGAT	GGCTTTATTG	AACACGACCG	TATCACGAGA	GAAGAACGTG	AGCTGGAGTT	1260
AGACGAATTC	CCTACTCGTG	AAGAATTATT	TTCTCGTATG	ACGAAGGAAA	AAGGATTGAC	1320
GTACGAAATT	ACAGAAGCTA	TCTCAACTCC	ATACTATACA	GACGCCTTCT	CAATGAAAAC	1380
GCCACGCTAT	TATCAGCAAA	TAGCTATCAA	CCGTACTATT	GAAACAGTTG	CCAGAGGACA	1440
AAAACGAGTA	ATGTTTGTTGA	TGGCAACAGG	AACGGGGAAA	ACGTTTCATGG	CTTTTCAAAT	1500
TATTCATCGC	CTTCGAAAAG	CTGGTTTGGC	TAAACGAGTT	TTATTCTTAG	CAGATAGAAA	1560
CATCTTAGTA	GACCAAACGA	TGGCTGAAGA	CTTTAGGCCA	TTCGAAAAGG	TAATGACGAA	1620
AATTACACCA	AACTTTTGA	CTGCTCCTGA	AAAATTAAAT	TCTTTTGAAA	TTTATCTAGG	1680
GCTTTATCAG	CACTTAAGTG	GTGAAGATGG	AACTGAAACA	CATTATCAAA	AATTTGACAA	1740
AGACTTCTTT	GATTTAATCG	TAATTGATGA	AGCGCACCCT	GGTTCAGCTA	AGGAAAACAG	1800
TAAGTGGCGT	AAGGTAATTG	ATTATTTTCAG	TTCTGCGACA	CAGATTGGGA	TGACCGCTAC	1860
TCTTAAGAA	ACCAAGAATG	CTTCCAATAC	GGAATACTTT	GGTGAGCCAA	TCTATACTTA	1920
TAGTTTAAAA	CAGGGAATCG	AGGATGGTTT	TTTGGCTCCA	TATCGTGTTA	TGAGGGTTAA	1980
TTTAGATGTG	GATGTGGATG	GTATCGTCC	AGAACTGGA	AAAGTTGATG	CTAACGGACA	2040
ATTAATAGAA	GATAGGTACT	ACGGCAGGAA	AGATTTTGAT	AAAACCATTC	TCATTGATGA	2100
TAGAACGCAA	AGAGTTGCCA	AGTTTGTTTC	TGATTATATG	AAGCAAAACA	ATGCACGATT	2160
TGATAAAACA	ATTGTTTTTT	GTGTTGATAT	TGACCATGCC	GAGCGAATGC	GTGCTGCACT	2220
TGTAAGAGAG	AATCTAGACT	TAGTCCAAGA	AGACTATCGT	TATGTATGTC	AAGTAACTGG	2280
TGACAACGCT	GAAGGAAAAG	CTCAACTGGA	TAACTTTATG	GATGTCAATT	CTAATTTTCC	2340
CGCTATTGTA	ACAACGTCTA	AATTATTAAC	GACAGGAGTT	AATGCTAAAA	CATGTCGTTT	2400
GATTGTTTTA	GACTCTAATA	TCCAATCCAT	GACTGAATTT	AAACAAATTA	TTGGTCGTGG	2460
CACACGCTCT	TATCCTCAAA	AGGGGAAAGA	ATTTTTTACG	ATTATTGATT	TTCGAAATGT	2520
TACCAATTTG	TTTGCTGACC	CTGATTTTGA	TGGTGATCCA	GTGAAGGTGC	TAGAAACAGG	2580
TGCGAAAACA	GTCAGTGGTT	CTACGCCCGG	TTTCGTAGAT	GAGGAAGGTG	ACCCAGTAGA	2640
AAAATATATC	GTTACAGACA	AGCAGGTTAC	CATTCTTAAT	TCTACTGTTT	AAGTATTGGA	2700
TGAAAACGGG	AAACTGATTA	CCGAAAGCCT	GACCGACTAC	ACTCGAAAGA	ATATCTTAGG	2760

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TAGCTACGCC ACTTTGAACG ATTTTATCAC AGTTTGGCAT ACGGCAGATA AGAAGAAGCT	2820
TATCTTAGAC GAACTTTATA AAAAAGGAGT TTATCTAGAT GCTATTCGAG AGTCGGAGGG	2880
AATATCAGAA CAAGAAATCG ATGATTTTGA TTTACTCCTA AAACCTGCCT ATGGTCAAAA	2940
AGAATTAACC AAAACGGAAC GTATCAATAA ACTCAAACAA AGCGGATATT TATATAAATA	3000
TAGTGAGGAA GCGCGTGCTG TTTTGGAAT TTTACTGAAC AAATACATGG ATAAAGGTAT	3060
TGGAGAACTC GAAAGCATTG AAACATTAAA ACTTCCAGAA TTTCAGATAT ATGGTGGAAC	3120
CTTCAAAATC ATCAATACTT ATTTTGGAGA TAAAAACGA TATTTACAAG CAATTAAAGA	3180
ATTGGAGCAA GAGCTATTTA CAGTAGCTTA ATGAAAGGAA AGTATGTCAA TTACATCATT	3240
TGTA AAAAGA ATTCAAGATA TCACTCGAAA CGATGCTGGT GTTAATGGTG ATGCTCAACG	3300
TATTGAGCAA ATGCTTGGT TATTTATCTT AAAAATTAT GATAGCCGTG AAATGGTTTG	3360
GGAATTAGAA GAAGACGAGT ATGAGTCAAT TATCCAGAG GAATTAATAA GCGGAAATTG	3420
GGCTCATGCT CAAAATGGGG AACGGGTATT GACAGGCGAT GAATTACTTG ATTTTGTCAA	3480
TAACAAGTTA TTCAAAGAGT TGAAAGAGCT TGAAATAACT TCAAATATGC CTATTCGAAA	3540
AACGATTGTT AAATCAGCTT TTGAAGATGC GAACAACTAT ATGAAAAATG GCGTCTTGT	3600
ACGCCAAGTC ATCAATGTTA TTGATGAAGT TGATTTCAAT AGCCCTGAAG ATCGTCATTC	3660
GTTTAATGAT ATTTACGAAA AAATTCCTAA AGATATTCAA AATGCTGGGA ACTCAGGAGA	3720
ATTTTATACG CCACGTGCAG CGACTGATTT TATTGCCGAA GTTCTTGACC CAAAACCTGG	3780
AGAATCAATG GCAGACCTTG CTTGCGGAAC AGGAGGCTTC TTGACTCGA CTCTGAACCG	3840
TTTAAGTAGT CAACGTAAAA CTAGTGAAGA TACCAAAAAA TATAATACAG CTGTTTTTGG	3900
TATTGAAAAG AAAGCATTTC CTCATCTTTT AGCAGTTACA AATCTGTTTC TTCACGAAAT	3960
TGATGACCCT AAAATTGTTT ATGGAATAC TTTGGAGAAA AATGTTTCGTG AATATACGGA	4020
TGATGAAAAA TTTGACATTA TTATGATGAA TCCACCTTTT GGAGGGTCAG AATTAGAAAC	4080
AATAAAAAAT AACTTTCCAG CAGAATTACG GAGTTCTGAA ACAGCTGATT TATTTATGGC	4140
TGTCATTATG TATCGTTTGA AAGAAAATGG TCGTGTGGA GTTATTTTAC CTGATGGTTT	4200
TCTATTTGGT GAAGGTGTAA AACTCGCTT GAAACAAAAA CTGGTAGATG AGTTCAACTT	4260
GCATACGATT ATTAGGTTGC CTCATAGTGT CTTGCAACCG TATACAGGAA TCCATACGAA	4320
CATTCTTTTC TTTGATAAAA CAAAGAAAAC AGAAGAACT TGTTTTATC GTTTAGATAT	4380
GCCAGATGGT TATAAAAAAT TCTCGAAAAC TAAGCCGATG AAGTCAGAAC ACTTCAATCC	4440
TGTTCTGTAC TGGTGGGAAA ATCGTGAAGA GATTCTGGAA GGTAAGTTCT ACAAATCTAA	4500

1012

ATCATTTACA CCTAGTGAAT TGGCTGAGTT GAATTATAAT TTAGACCAGT GTGACTTTCC	4560
AAAAGAGGAA GAGGAAATCT TAAATCCCTT TGAGTTGATT CAGAATTATC AAGCGGAAAG	4620
AGCAACTTTA AATCATAAGA TTGATAATGT ATTAGCTGAT ATTTTGCACT TGTGGAGGA	4680
CAATAATGA CACCAGAACA ACTTAAAGCA AGTATTCTCC AAAGAGCGAT GGAAGGGAAA	4740
TTAGTGCCGC AAAATCCCAA TGACGAACCT GCAAGTGAAT TATTAAAGAG AATTAAAGCT	4800
GAAAAAGAAA AACTTATCAG TGAAGGAAAA ATCAAACGAG ATAAAAAGGA AACTGAGATA	4860
TTTCGTGGTG ATGATGGGAA ACATTATGGG AAGTTTGCTG ATGGAAGCAC TCAAGAAATT	4920
GATGTTCTTT ATGATATTCC TGATACTTGG GAGTGGGTGA GGTTTTCTAC ATTGGTTGAA	4980
ATTGTCAGAG GTGGCTCTCC ACGACCAATC AAAGATTATC TTAGTTCTGA AGTAGATGGA	5040
ATAAATTGGA TAAAAATAGG TGATACTGAA AAGGGTGAAA AGTATATAAA TAATGTTAAA	5100
GAAAAATCA AAAAATCAGG GCTTAACAAA ACTAGATTGG TAAAAAAGG TACATTTTGG	5160
TTAACTAATT CTATGAGTTT TGGTAGACCT TATATTTTGA ATGTTGATGG TGCAATACAC	5220
GATGGATGGT TGGCTATTTC GAACTATGAA AACTCATTA ATAAAGATTA CCTATTCTAT	5280
ATTCTTTTAT CAAATGTAGT TTATTCTCAA TTTCTATCTC TAATTAGTGG AGCTGTTGTG	5340
AAAACTTGA ATAGTGATAA AGTTGCTTCT ATTCTTATCC CTCTCCCCC ACTATCCGAA	5400
CAACAACGAA TAGTAGAAGC AATCGAATCA GCTTTAGAAA AAGTAGATGA ATATGCTGAA	5460
AGTTATAATA GACTAGAACA GCTAGATAAA GAATTTCCAG ATAACTAAA AAAATCTATT	5520
CTTCAATATG CTATGCAAGG AAAATTAGTT GAACAAGACC CAAATGATGA ATCAGTCGAA	5580
GTTTTACTTG AAAAAATACG AGCAGAAAAA CAAAACTCT TTGAAGAAGG CAAGATTAAA	5640
AAGAAAGATT TGGACATTTC TATTGTTTCC CAAGGAGATG ATAACTCTTA TTATGGGAAT	5700
ATACCTATGA ATTGGGTTGT TATAAAAATA AAAGATATTT TTTCAATAAA TACAGGTCTT	5760
TCTTACAAGA AGGGCGATTT AAGCATTAAT AATAAAGGTG TTAGAATTAT ACGTGGTGGT	5820
AATATTAAGC CTTTAGAATT TTCTCTGTTG GATAATGATT ACTACATTGA TACACAATTC	5880
ATCTCCTCTG AGCAAGTTTA TTTAAAACAT AATCAGCTAA TAACACCTGT ATCAACCTCT	5940
TTAGAACATA TTGGAAAGTT TGCAAGAATC GATAAAGACT ATGATGGTGT TGTGGCTGGT	6000
GGATTATTTT TCCAATTAAC ACCATTCGAA AGTTCAGAGA TTATTTCAA ATTTCTATTA	6060
TTTAACTTGT CCTCTCCGTT ATTTTATAAA CAATTGAAAG CAATAACTAA ACTATCAGGT	6120
CAAGCTTTAT ATAATATTCC TAAAACTACA CTGAGCGAGC TATTAATTCC GTTAGCTCCT	6180
TTTGAGGAAC AGGAACTTAT TACTCAAAAA GTTGAGAAAC TTTTGA AAA AGTAAATCAA	6240
CTTGAAAAAT GATTCTTTTC ATCTCTTCAT GATTAGAAAT AGGGATTAAAT AATTCGAGA	6300

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TACTGGTACT ATTTAATGTT TTCCCTTTGA TAGCATCTTT TGAATCACCT AAAGTAGAGA	6360
TAAGTGGCAA AAATATCATT AAGTAATCTC TGATAATATT TTCTTTATTA GCATAGGGGA	6420
ATATCGATAT AATGGCTTCA TTATGAGTGG CAGGAATATC CAATATGGCA ACTTTTCCAA	6480
TAGATAATTT AAAACTCATT AATAAAGTTC CTTTAGGTGA AATGTCTATT TTCTTTGATT	6540
TTAATGCTAA TTTAGAAATA GATTCTCTCG CATTAGTTAC ATAACCAGAT ATAGGCATAT	6600
CTGATATAGA TACCCAAGGT ATTTCAGTTC CCCAAAAAGT AGCTTCACTG CGTGGAGGAG	6660
TTTTTCCTAT TCTGAAGTTA ACTAGGCTAG CAAATTTAAT ATATCTCCAT GCTTCTGGGA	6720
TTTCATATAT AGGATAAGAG GTTGTTCGT CTTGTTCCTC ATAATAAGAG CCATAATCAC	6780
AAAAATAGCA GGTAGTCAGT TTGACCACCT GTTATTTTTT ACCAATTAAC AATTTTATCT	6840
ACAAATTTTT GTTGTTCAGT AGCTGTTTTC CTTAGATAAA TTCGAGTAGT TTCTATACTT	6900
TCGTGTCCCA TCAAATCTGC AAGCAAGGCA ATATCATTAT ACTTCGCTAA AAAATTCTTA	6960
GCAAATAAAT GCCTAAAAGA ATGAGGGTAA ATTACGTTAG GATTCATTTT GTATTTATCA	7020
GCATAATTTT TTAAGTGTG AGCAACTCCT CTTGCTGTAA TTGGTTCGTT AAATTTATTC	7080
AAAAATAAAT AACCACCTCG GCGATTTTCT GATTCTAACC AACTAAGACA ACTATTTCTT	7140
AATTTTTTAG GAATGTACAG TCTACGAATT TTACCACCTT TTGAGTAAAT GTCAAAATAA	7200
CCGATTTCTA CATGCTCTAC TTTTAGTTTA ATAAGTTCAC TTACACGAGC CCCAGTTGCA	7260
CCTAAAAACC AAACGACAAA ATGCCATTTT AAAATACCAT CTTTTTTCAA ACTACGTTTA	7320
AGAAAAAGGT AATCAGCATG GCTAATGACA TCTTCTAAAA ACGGTTTTTG CTGTACTTTG	7380
ACAAATTTTA ATTTCAAATC ATCATGACCA ATAAAAGCCA GATATTTATT TACTCCTTGT	7440
AGTCGCAAAAT TGACAGTTTT AGGTTTAAAA TTGTCTAATA AATATCCTTT GTATTCAAAT	7500
AAATCTTCCA TTTTGAGTTC GTAATTCTCC AAGAAAAATC GAACACCATA AAGGTACGAA	7560
CGCACAGTAT TTTCAGCTAA ACCAGCTTTC TTCAAATGTA ATTCAAAATC TTTCAACGTA	7620
AAACTCCTAT CTTATGTTTG ATAGAAATTC CACCGCACGT AAACTATTA TACTAAATTA	7680
GTGCGTCAAT ATGGGCGAAA AATTGTTTCA TTTTATCAAC GATTCTGGAT TGTTCAAGAA	7740
GGGGTGGGAG GGGGATTAAA TATTCTTTTA TAGTTTTCTG TAATAATTCT TTTTGTTTTG	7800
TACTACCCGA CGCTTTTTCT TCAATAACTG ACTGAACAAT AGGAGAGGAA AGAAAATTAT	7860
AGATGAAATG GCAATTAATA ACCCCCGATA AGACTCTTAT AACTGTAACA TGGCTATCTG	7920
CAACAGCCCA GCCATAAGGA TTTTATTTTT CATGGTAAAT AGCTAATCGT CCTAACGTAC	7980
CTAGACCTGT TGAATCCAC ATTAAATCAC CATCTCTTAG TAATCTTCTT TTCTGGTAAC	8040

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TATGAACTGT TTCGGGATCA ATAAATCTTG CTAAGTCAAT AGAAAAGCCA GACCATTGAT	8100
TACATTTCTG AGCAATCACA GGGTATATAG GAATATTTGA ATATTTTGGA GACTTCCCTC	8160
TTTGAATGTA GGAGGTTATA TCGTTTAACC TCACCCATTC CCAACTTTCT GGTATTTTAC	8220
AAGGTACTTC CTCATAATA GAGTTATCAT CTCCTTGGA AACAATAGAA ATGTCCAAAT	8280
CTTTCTTTTT AATCTTGCCT TCTTCAAAGA GTTTTTGTTT TTCTGCTCGT ATTTTTTCAA	8340
GTAAACTTTC GACTGATTCA TCATTTGGGT CTTGTTCAC TAATTTTCCT TGCATAGCAT	8400
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TATAACTTTC AGCATATTCA TCTACTTTTT CTAAAGCTGA TTCGATTGCT TCTACTATTC	8520
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TAGCTATCAA ATACTCTTTA AGTTCTCTAA CTACAGCAAT ATTTTTTAGA TATGGTCTAA	8760
CTGTTGAAAA TAAGACACTA TTCTGCGAAA CTAATTTTCT AGCACGGGAA GGCCTTGT	8820
CAGGTGAAAG ATATTGTAGA TTTTGTAGT TGAATTATGT CTTTTTCTA TCAATACTAG	8880
ACGTATCTAT ATACCTAAAG GATTTCTCTG GCTTATTTTG CCCAAATTC CAATAAATTG	8940
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TAAAAATACG CCTATAGATA ATGGGGTTGA AATAGGTTTA TTGTGTAGTA GATTGTAGAT	9120
AATTCAATTT TTTACTTCCA ATCGAATATT CAAATCCTCC ACCTTTTCTG CCTGTAAATTG	9180
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TATTGAGATA ATATAGTAGA TTGAAATAAG ATGTAAACAA ATCGATTAGG AAAGTTAAAT	9360
TAGTTTCTAG AAATTTTAG CAGATGTAGT GTACTATTCT AGTCTCAATT TACTATGGCT	9420
TCAATATAT CTTCGAAAA AATATTTACA GATGTGTAAT TTTGAAGCTT GCAAAAGTTA	9480
GTAAACTTGT AGATTTCGAT TTGAAGTAAC TTGTTTCTT GCCCGATATT GTTTTTGAAA	9540
TTGAATTTTT CCATAGTGAC TCCTTAATTT TCTTCTACAC GTCTGATGAT AAATCTAATT	9600
CGCAAAAGAG TCAAGAGGAT TTTCGAAAA ATAAATAGCG ACCGAAATCG CTATTTTAAG	9660
GGTTATAGGT ATTTGATGGC TTAGACTGCT GTGTGACTGT TTACCCACAG GCAATCTTTC	9720
TTCTATATTA GTATTAGTAA AGGTCTAAAT AATTATCAAT TTCCCATTTG GAAACGAAGG	9780
TTGCATAACT TGCCCATTCG ATTCGTTTGG CTTCAAGGAA GCTAGTATAG ATGTGATCTC	9840

1015

CGAGAGCAGC TTAAACCACT TCATCTTCTG TCAAAGCTTT CAAAGCGTTG TGAAGAGTTG	9900
ATGGAAGGTC TGTAATACCA GCTTCCTTGC GCTCTTCTGC TGTCATGATG TAGATATTTT	9960
CTTCGATAGG AGCTGGTGCT TCGATTTTAT TTTCAATACC ATACAAACCA ACTTCCAAAA	10020
GAACAGCCAT AGCAACGTAA GGGTTCGCCA TTGGATCCAC TGAACGCAAC TCAAGACGAG	10080
TTCCCATACC ACGTGAAGCA GGTACGCGCA CAAGTGGCGA ACGGTTACGA CCAGCCCAAG	10140
CAATGTAAAC AGGCGCTTCA TAACCTGGAA CCAAACGTTT GTATGAGTTA ACTGTTGGGT	10200
TCATGATGGC AGTATAGTTG TAAGCATGCT TGATCAAACC GCCTAGGAAA TGGTAAGCTG	10260
TTTCTGACAA CTGCATTCCT TTTGGATCAT TTGGATCAAA GAAGGCGTTA TTTCTTCTG	10320
CATCAAACAA GGACATATTA CAGTGCATAC CTGATCCAGC AATACCAAAT TTTGGCTTCG	10380
CCATAAATGT TGCCTAAAGT CCGTGTTCG GAGCAATGGT TTTAACAACA AGCTTAAAGA	10440
TTTGAATCTT ATCACAAGCA CGGAGAACTT CATCGTACTT AAAGTCAATC TCATGCTGTC	10500
CAACCGCAAC CTCGTGGTGA CTCGCTTCTA CTTCAAATCC CATTTTGGTC AAGACATTCA	10560
CAATCTCAGC ACGTGTGTTG TCCGAAGGT CAGTAGGTGC CAAGTCAAAG TAGCCACCCT	10620
TGTCATTCAC TTCAAGTGT TGGTCCCAT TTTTCATCAA CTAAATAGG AAGAATTCTG	10680
GCTCTGGACC AAGGTTGAAG GATTTGAATC CAACTTCTTC CATGTGACGA AGAGCTCGTT	10740
TCAAATTACC ACGAGGGTCA CCCGAAATG GTTCACCTTC TGTGTATAG ACATCACAGA	10800
TCAGACCTGC AACACTTCCA TTTTCATCTC CCCAAGGGAA GACTGTCCAT GTATCCAAGT	10860
CCGGGTACAA GTACATATCC GACTCATTGA TACGTACAAA ACCTTCAATA GAAGATCCAT	10920
CAAACATAAC CTGTTCGAC AAGACCTTAT CTAAGTGTTC ATCTGTAGCA GGAATTTCTGA	10980
CGTTTTTCAT GGTTCCTAAA ATATCTGAGA ACATAAGACG AATAAAGGTA ACATTTTTTT	11040
CCTTGACTTC ACGACGAATA TCTGCAGCTG TGATTGGCAT AAGTTTTCTC CTTAATCTAT	11100
GACTACTTGC GGTTCCTTAA CCGCGACCAA AAGGTGACTG TACTGAAGCA AAACGCCCCT	11160
GTTGGAGGAG TTCATTGTGA AGTGACGAC GTACTTCAGT CTGACTAACC GCTTCTTGG	11220
ATTCGCTTC ACGTTCAGCA TATTTTTTCT TAATGCGAGC GATATTATAA CCTTCAGAGA	11280
TATAATCTTT GATTCAAGC AGACGATCCA TGTCATTCAA GGAATACATG CGACGATTTC	11340
CTTCGTTTCG ATCGGGCTTG ATCAACTCTT GATCTTCATA ATAACGAATC TGACGCGCCG	11400
ATAGATCGGT CAACTTCATA AACTGCGCA TAGGAAAAAC AGCCATATTT CGCGAAATT	11460
CTTTTCTCTT CATTTACAAT TTCCTTCTTT CTGTCTATTA TAGTCTAAAA AAAGACAAAC	11520
GTCAATTGAT AATGTTATAA AATGTAACAT TATTTTTCTT TTTTCTCTAA AAAGAGACGA	11580

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ATACGATCAA TATCGTAATT TACGATAATT GCGACAAAAA CTCCCATAAA CGTTTCTAAT	11640
ACACGCACAA ACACGTACAA AATTGTCCTCA CCACTTGGAA TTGATAGGGT AATGATTAAC	11700
ATAGCTGCTA CACCACCAAT AACCCCTGCT TTGTTATTCA TGGCTACATT TGTCAATAATG	11760
GTTAACATGG TGCAGATTGG AACAACTACC AAGGTCACCC AAAAGGCTTC GTGGAAAAAG	11820
GTATTTAATA AGAAGAAGAC CAAGGCATAG AGTCCACCGA TACTATTTCC TAGAATACGC	11880
GAAGTCCCAA AATGAACACT CTCATCAAAA CTCTCCCTCA GGCTAAAAAC GGCTGTCAAA	11940
GCACCAATTT GAAGACCTTT CCAGCCAAAA AAGCCAAAAA TCAAGAGAAC TAGAAAAACA	12000
GCAATACCTG TTTTAAAGGT TCGCATACCA AGTTTGAAGT GGGATTTATC GAATTTATAT	12060
TTTTTAAAT AACTCATAAT CTCAACTTTC TATTTCCATT TTATCATAAA TCGGTGATTT	12120
TTATGAGTAA TAGTTGAGAG GAAGCGTTTT TATTTTAAGC AAAAGAAAAG AGGAACTTTC	12180
ATCCCTCTCT TCTTTGATTT ATTTATAAAA TCTTATTTT CTGTCAAGGC TGCAAGTCCT	12240
GGAGAACCT TACCTTCAAG AAGTTCCATT GATGCTCCAC CACCCGTACT AATCCATGAG	12300
AAGTGTCTG CACGGCCAAG GTTAATCGCT GCGGCAGCTG AGTCACCACC ACCGATGATT	12360
GATTTAACTC CTGGTTGTTT CACGATAGCG TCCATCACAC CGATTGTACC AGCTTGGAAG	12420
TCTGGGTTTT CAAATACACC CATAGGTCGG TTCCATACGA CTGTTTTGGC ACCAGTCAAA	12480
GCTTCGTCAA ATTTGGCGAT AGATTTTGA CCGATGTCAA GACCAAGGAA GCCTTCAGAA	12540
ACTGCTTCAC CTTCAGTGTC ACGCACTTCA GTGTAACCAG CAAATGCGTT AGCTTCTTTT	12600
GAGTCAACTG GCAAGATCAA TTTACCATT GCTTTTTCAA GAAGAGCTTT CGCAACATCC	12660
AATTTGTCTT CTCTACAAG TGAGTTACCG ATTTGATAC CTGTGCTTT GTAGAATGTG	12720
TAACTCATCC CACCACCGAT AAGGACGTTA TCAGCTTTTT CAAGCAAGTT TTCGATAACA	12780
CCGATCTTGT CTGAACTTT TGAACCACCA AGGATAGCCA CGAATGGACG TTCTGGAGTT	12840
TCAACTGCTT CTTGGATGTA GGCAATTCG TTTTCAAGAA GGAAACCAGC AACTGCTTTT	12900
TCAACGTTTG CTGAGATACC AACGTTAGAT GCGTGTGCAC GGTGAGCTGT ACCGAATGCA	12960
TCGTTTACGA AGATACCATC TCCAAGTGAT GCCCAGTATT TACCAAGTTC AGGATCGTTT	13020
TTAGATTCTT TCTTGCCGTC AACATCTTCG TAACGAGTGT TTTCAACCAA GAGAACTTGT	13080
CCATCTTCAA GAGCGTTGAT TGCCGCTTCT AATTCAGCAC CACGAGTGAC ACCTGGGAAA	13140
ACAACATCTT GACCAAGTTT TGCTGCCAAG TCAGCTGCTA CAGGAGCAAG TGATTTACCA	13200
GCTTTATCAG CTTCTTCTTT CACACGTCCA AGGTGAGAGA AAAGAATTGC ACGTCCACCT	13260
TGTTTCGATGA TGTAATTAA AGTTGGAAGA GCTGCTGTGA TACGGTTATC GTTAGTGATT	13320
ACGCCATCTT TCAATGGTAC GTTGAAGTCA ACACGAACGA GGACTTTTTT ACCTTTCAAG	13380

1017

TCAACGTCTT TAACAGTAAG TTTTGCCATG TTACAAAAAC TCCGG

13425

(2) INFORMATION FOR SEQ ID NO: 152:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 905 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 152:

GATTTATCCT ACCGGnGAAT TTCCGGAGGG GTTCTAGCAG CAATCTTAGG AATCTATGAA	60
CGAATGATTG GCTTCTGGC CCATCCCTTT AAAGACTTTA AAGAAAATGT TTTGTACTTT	120
ATTCCAGTTG CCATCGGTAT GCTTCTGGGA ATCGGCTTAT TTTCTACCC GATTGAATAC	180
CTGCTTGAAA ATTATCAGGT TTTTGTATTA TGGAGCTTTG CGGGAGCTAT TATCGGTACA	240
GTTCTAGCC TCCTCAAAGA ATCAACTCGA GAATCTGACC GAGACAAGAT TGATTTAGCT	300
TGGTTATGGA CAACCTTTAT CATTTCTGGA TTAGGACTCT ATGCCTTAAA TTTGTGCGTT	360
GGAACCTTAA GCGCCAGCTT TCTTAACTTC GTCCTAGCAG GCGCACTATT GGCCCTTGGC	420
GTCTTGTTT CTGGCCTCAG CCCATCAAAT TTACTTTTGA TTTTGGGACT CTATGCTCCT	480
ATGTTGACTG GTTTTAAAC TTTTGATTTC TTGGGAACCT TCTTTCCGAT TGGAAATTGGT	540
GCAGGTGCAA CTCTCATCGT TTTTCAAAA TTGATAGATT ATGCCTTAAA CAACTACCAC	600
TCACGCGTCT ATCATTTTAT CATCGGTATC GTCCTATCAA GTACCCTTTT GATCTTAATT	660
CCAAATGCAG GAAACGCTGA AAGTATCCAA TACACAGGAC TTCACTTGT CGGTTATGTC	720
ATCATCGCCT TCTTCTTTC GCTGGGAATC TGGCTTGTA TTTGGATGAG TCAATTGGAG	780
GATAAATATA AATAATGGCA AAAAAAGTTA AAATCAAAAA AACATTGGTG GAACAAATCC	840
TATCTAAAGC AGCTATCCCT CATCAGGGGA TTCAAATCAA TGCCCTAGAA GGAGAGCTTC	900
CTCAA	905

(2) INFORMATION FOR SEQ ID NO: 153:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4278 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 153:

1018

CTTGAATTAA ATAAAAACG TCATGCGACT AAGCATTTTA CTGATAAGCT TGTGATCCC	60
AAAGATGTGC GTACGGCTAT CGAAATTGCA ACCTTAGCGC CAAGCGCCCA CAACAGCCAG	120
CCTTGGAAT TGTGGTGGT ACGTGAGAAA AATGCTGAAC TGGCAAAGTT AGCTTATGGT	180
TCCAATTTTG AACAGGTATC ATCAGCGCCT GTAACCATMG CCTTGTTTAC AGATACGGAC	240
TTAGCCAAAC GTGCTCGTAA GATTGCCCGT GTTGGTGGTG CTAATAACTT TTCTGAAGAG	300
CAACTTCAAT ATTTTATGAA AAATCTGCCA GCTGAGTTTG CCCGTTACAG TGAGCAACAA	360
GTCAGCGACT ACCTAGCTCT CAATGCAGGT TTGGTTGCCA TGAACCTGGT TCTTGCATTG	420
ACAGACCAAG GAATTGGTTC TAACATTATT CTTGGTTTTC ACAAATCAAA AGTTAATGAA	480
GTTTGTGAAA TCGAAGACCG TTTCCGCCCA GAACTCTTGA TCACAGTGGG TTATACAGAC	540
GAAAAATTGG AACCAAGCTA CCGCTTGCCA GTAGATGAAA TCATCGAGAA AAGATAGAAA	600
GAAGAAAAAA TGACAGCAAT TGATTTTACA GCAGAAGTAG AAAAACGCAA AGAAGACCTC	660
TTGGCTGACT TGTTTAGCCT TTTGGAAATC AATTCAGAAC GTGATGACAG CAAGGCTGAT	720
GCCCAGCATC CATTTGGGCC TGGTCCAGTA AAAGCCTTGG AGAAATTCCT TGAAATCGCA	780
GACCGCGATG GCTACCCAAC TAAGAATGTT GATAACTATG CAGGACATTT TGAGTTTGGT	840
GATGGAGAAG AAGTTCTCGG AATCTTTGCC CATATGGATG TGGTGCCTGC TGGTAGCGGT	900
TGGGACACAG ACCCTTACAC ACCAACTATC AAAGATGGTC GCCTTTATGC GCGCGGGGCT	960
TCGGACGATA AGGGTCCTAC AACAGCTTGT TACTATGGTT TGAAAATCAT CAAAGAATTG	1020
GGTCTTCCAA CTTCTAAGAA AGTTCGCTTC ATCGTTGGAA CAGACGAAGA ATCAGGCTGG	1080
GCAGACATGG ACTACTACTT TGAGCACGTA GGACTTGCCA AACCAGATTT CGGTTTCTCA	1140
CCAGATGCTG AATTTCCAAT CATCAATGGT GAAAAAGGAA ATATCACGGA ATACCTCCAC	1200
TTTGCAGGAG AAAATACAGG TGTGCCCCGT CTTACAGCT TTACAGGTGG TTTACGTGAA	1260
AATATGGTAC CAGAATCAGC AACAGCAGTC GTTTCAGGTG ACTTGGCTGA CTTGCAAGCT	1320
AAACTAGATG CCTTTGTTGC AGAACACAAA CTTAGAGGAG AACTCCAAGA AGAAGCTGGC	1380
AAATACAAGG TGACGATCAT TGGTAAATCA GCCCACGGTG CTATGCCTGC TTCAGGTGTC	1440
AATGGCGCAA CTTACCTTGC CCTCTTCCTC AGCCAGTTTG GCTTTGCTGG TCCAGCCAAA	1500
GACTACCTTG ACATCGCAGG TAAAATTCTC TTGAACGATC ATGAGGGTGA AAATCTTAAG	1560
ATTGCTCATG TGGATGAAAA GATGGGTGCT CTTTCTATGA ATGCCGGCGT CTTCCACTTC	1620
GATGAAACAA GTGCTGATAA TACCATTGCC CTCAACATCC GCTATCCAAA AGGAACAAGT	1680
CCAGAACAAA TCAAGTCAAT CCTTGAAAAC TTGCCAGTTG TTTCTGTTAG CCTGTCTGAA	1740
CACGGTCACA CGCCTCACTA TGTGCCAATG GAAGATCCAC TTGTGCAAAAC CTTGTTGAAT	1800

1019

ATCTATGAAA AACAACTGG CTTTAAAGGT CATGAACAAG TCATCGGTGG TGGAACTTTT	1860
GGTCGCTTGC TAGAACGCGG AGTTGCCTAC GGTGCTATGT TCCCAGACTC GATTGATACC	1920
ATGCACCAAG CCAATGAATT TATCGCCTTG GATGATCTTT TCCGAGCAGC AGCAATTTAT	1980
CCCGAAGCTA TTTACGAATT GATCAAATAA AACGATAGAA GTCTGAGATC TTATGCTTGG	2040
ACTTCTTTTT GGAGGGAAAG TAGATGTCTC AAATCGAAAG AATCAAACAG GCTATCATGG	2100
CGGATTGCGA GAATGCCAGC TATACAGAGC GTGGCATTGA GCCTCTCTTT GCAGCGCCAA	2160
AAACTGCTCG CATCAATATC ATCGGTCAGG CTCGGGACT TAAAACTCAA GAAGCAGGCC	2220
TTTACTGGAA AGATAAAAGT GGTGACCGCT TCGGGGACTG GCTAGGTGTG GATGAAGATA	2280
CCTTTTACAA TTCAGGTAT TTTGCTGTTT TGCCTATGGA TTTCTACTTT CCAGGACATG	2340
GCAAGTCGGG TGATCTTCCG CCTCGTACAG GTTTTGCGA AAAATGGCAT CCGCAGGTCT	2400
TACAGGAATT GCCTGATATT CAGTTAACCC TCTTGATTGG GCAATATGCC CAAGCCTACT	2460
ATTTACAGGA GAAAATCAGT GGAAGGTAA CGGAGAGGGT GAAACACTAT AAAGACTATC	2520
TGCCAGCCTA TTTCCGCTA GTTCACCCAT CACCACGAAA TCAAATCTGG ATGGCCAAAA	2580
ATCCTTGTTT TGAGGCAGAA GTAGTGCCAG ATTTGAAAAA AAGAATTAAA ACCATTTTAT	2640
AGTCAATGAA AATCAAAGAG CAACTAGGA AGCTAGTCGT AGGCTGCTCA AAGTACAGCT	2700
TTGAAGTTGC AGATAAACT GACGAAGTCG GTAACATACG CACGGTAAGG CGACGCTGAC	2760
GTGGTTTGAA GAGATTTTCG AAGAGTATTA GAAGAAAAAG AATGAAAGAA ATAGCCTTTG	2820
ACGCATTTTA CCAGCTTTAC CAAAACGACC AGCTTTCTTT AGTGGATGTG AGAGAAGTGG	2880
ATGAGTTTGC AGCTCTTCAT TTAGAAGGTG CCCACAACCT ACCGCTTAGT CAATTGGCTG	2940
ATAGTTATGA TTAATTGGAC AAAGATCGCT TGCATTATAT TATTTGCAAA TCTGGAATGA	3000
GATCGGCGCG TGCTTGCCAA TTCCTATTAG AACAAAGTTA TAATGTTATC AATGTCCAGG	3060
GTGGCATGTT AGCCTTTGAA GAACTTTAAA ATTTTGCAAT TCTCCTACTT GGTGTGGAAT	3120
GGGTAGGAGA GTTTTATTTT TAGATAATTC TTATTTTAA GAAAATTGAA AACATTTAAT	3180
ATTTGCCTCG TGATGCTTTT TTCAGACTCC TAATCGTGGT ATACTAGGTC AGTATTTTAT	3240
AAATATGAAG GAGATTTTAA TGGCTAAAAA AGGTACCCTA ACAGGTTTGC TCCTGTTTGG	3300
AATATTTTTT GGTGCGGGA ACTTGATTTT TCCGCCTTCT CTAGGTGCTC TATCTGGAGA	3360
ACATTTTCTT CCGCCATCG CAGGTTTGT CTTTCAGGC GTTGGTATCG CCGTCTTGAC	3420
CCTTATTATT GGAACGCTAA ATCCTAAAGG ATATATCTAC GAGATTTCAA CGAAGATAGC	3480
GCCTTGTTTT GCGACTCTTT ACCTCTCAGT TCTTTACTTG TCAATCGGTC CATTCCTTGC	3540

1020

TACCCACG	ACTGCTACAA	CAGCTTACGA	AGTAGGGATT	AGCCCCCTTT	TGTCGGATGC	3600
AAATAAAGGA	CTTGCGTTGA	TGTATTAC	GGTCTGTAT	TTTGCGGCAG	CCTATTGAT	3660
TTTCGCTTAAT	CCATCAAAAA	TCTTAGACCG	CATTGGACGT	ATTTTAACGC	CAGTCTTTGC	3720
AATTTTGATT	GTTATCTTGG	TCGTTCTGGG	AGCTATCAAA	TATGGTGGA	CAAGTCCTCA	3780
AGCTGCTTCA	CTGCTTATCA	AGCTTCTGCC	TTTGGTACAG	GTTTCCTAGA	AGGTTACAAT	3840
ACCTTGACG	CCCTTGCCCTC	AGTGGCCTTT	AGCGTAATCG	CAGTTCAAAC	CTTGAAACAA	3900
CTTGGAATTTT	CAAGTAAGAA	AGAATACATT	TCAACTATTT	GGGTTGTTGG	TATCGTTGTT	3960
GCCCTTGCCT	TCAGCGCTCT	TTACATCGGT	TTAGGTTTTC	TTGGAAATCA	TTTCCCAGTA	4020
CCAGCTGAAG	CGATGAAGGG	TGGAACACCA	GGTGTTCACA	TCTTGTCACA	AGCCACTCAA	4080
GAAATCTTTG	GCTCAACAGC	TCAACTCTTC	CTTGCAGCTA	TGGTTACCGT	AACCTGCTTC	4140
ACAACGACTG	TTGGTTTGAT	TGTGTCAACA	GCTGAGTTCT	TTAATGAGCG	CTTCCCACAA	4200
ATCAGCTACA	AGGTTTATGC	GACAGCCTTT	ACCTTGATTG	GATTGCTAT	TGCCAATTTG	4260
GGTCTTGATG	CGATTATC					4278

(2) INFORMATION FOR SEQ ID NO: 154:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1953 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 154:

ACCCGATCAA	ATGACAAAAG	CTAACTTTGG	TGTCGTAGGT	ATGGCCGTAA	TGGGTCGTAA	60
CCTTGCCCTT	AATATTGAAT	CTCGTGGTTA	CACAGTTGCT	ATCTACAACC	GTAATAAAGA	120
AAAAACGGAA	GATGTGATTG	CTTGCCATCC	TGAAAAGAAC	TTTGTACCAA	GCTATGACGT	180
TGAAAGTTTT	GTAAACTCAA	TCGAAAAACC	TCGTCGTATC	ATGCTGATGG	TTCAAGCTGG	240
ACCTGGTACA	GATGCTACTA	TCCAAGCCCT	TCTTCCACAC	CTTGACAAGG	GTGATATCTT	300
GATTGACGGA	GGAAATACTT	TCTACAAAGA	TACCATCCGT	CGTAATGAAG	AATTGGCAAA	360
CTCTGGTATC	AACTTTATCG	GTACTGGGGT	TTCTGGTGGT	GAAAAAGGTG	CCCTTGAAGG	420
TCCTTCTATC	ATGCTGGTG	GACAAAAAGA	AGCCTACGAA	TGGTTGCCG	ATGTTCTTGA	480
AGAAATCTCA	GCTAAAGCAC	CAGAAGATGG	CAAACCATGT	GTGACTTACA	TCGGTCCTGA	540
TGGAGCTGGT	CACTATGTGA	AAATGGTTCA	CAATGGTATT	GAGTACGGTG	ATATGCAATT	600
GATCGCAGAA	AGCTATGACT	TGATGCAACA	CTTGCTAGGC	CTTCTGCAG	AAGATATGGC	660

1021

TGAAATCTTT ACTGAGTGA ACAAGGTGA ATTAGACAGC TACTTGATTG AAATCACAGC	720
TGATATCTTG AGCCGTAAAG ACGATGAAGG CCAAGATGGA CCAATCGTAG ACTACATCCT	780
TGATGCTGCA GGTAAACAAG GAACTGGTAA ATGGACTAGC CAATCATCTC TTGACCTTGG	840
TGTACCATTG TCACTGATTA CTGAGTCAGT GTTTGCACGC TACATTTCAA CTTACAAAGA	900
AGAACGTGTA CATGCTAGCA AGGTGCTTCC AAAACCAGCT GCCTTCAACT TTGAAGGAGA	960
CAAGGCTGAA TTGATTGAAA AGATCCGTCA AGCCCTTTAC TTCTCAAAAA TCATTTTCATA	1020
CGCACAAAGG TTTGCTCAAT TGGCTGTAGC CTCTAAAGAA AACAACCTGGA ACTTGCCATT	1080
TGCAGATATC GCATCTATCT GGCCTGATGG CTGTATCATC CGTTCTCGTT TCTTGCAAAA	1140
GATTACAGAT GCTTACAACC GCGATGCAGA TCTTGCCAAC CTTCTTTTGG ACGAGTACTT	1200
CTTGGATGTT ACTGCTAAGT ACCAACAAGC AGTACGTGAT ATCGTAGCTC TTGCGGTTCA	1260
AGCAGGTGTG CCAGTGCCAA CTTTCTCAGC AGCTATTACT TACTTTGATA GCTACCGTTC	1320
AGCTGACCTT CCAGCTAACT TGATCCAAGC ACAACGTGAC TACTTTGGTG CTCACACTTA	1380
CCAACGTAAG GACAAAGAAG GAACCTTCCA CTACTCTTGG TATGACGAAA AATAAGTAGG	1440
TCAGCCATGG GGAACCGAT TTTATTACTT GAGAAAGAAC GAAATCTAGC TCATTTTTTA	1500
AGTTTGGAAC TCCAGAAAGA GCAGTATCGG GTTGATCTGG TAGAGGAGGG GCAAAAAGCC	1560
CTCTCCATGG CTCTTCAGAC AGACTATGAT TTGATGTTAT TGAACGTAA TCTGGGAGAT	1620
ATGATGGCTC AGGATTTTGC AGAAAAATTG AGCCGAATA AACCTGCCTC AGTCATCATG	1680
ATTTTAGATC ATTGGAAGA CTTGCAAGAA GAGCTGGAAG TTGTTACAGC TTTTGCAATT	1740
TCATACATCT ATAAGCCAGT CCTTATCGAA AATCTGGTAG CGCGTATTTC GGCGATCTTC	1800
CGAGGTCGGG ACTTCATTGA TCAACACTGC AGTCTGATGA AAGTTCCAAG GACCTACCGC	1860
AATCTTAGGA TAGATGTTGA ACATCACACG GTTTATCGTG GTGAAGAGAT GATTGCTCTG	1920
ACACGCCGTG AGTATGACCT TTTGGCGACA CGG	1953

(2) INFORMATION FOR SEQ ID NO: 155:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6474 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 155:

CCGGCAGTAC ACGAGCTTGG GGAACAGCCA CTGGAACGAT GAGGTGTGAG CTCAAAATAT	60
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1022

CCTCCAGTTA TGTTTTTCCT AATAGTATAC CGGAAGAGTG AAAGGATTTT ATAATGGAGC	120
GGTTACAAAG AACCTACTTT CTATTAAACA GTATACTATG AAAATGTGAA AATTTAACAT	180
TTTTTTGTAC AAATTTTATA AATTATTGCC TTTTAAATAT CAATAGTTAA TCTCTTATCC	240
AGATCCCCCT TGTGTAAACT TTATCTTTAT AAGCTTCAAG GCCCCTATCC CATCTATTG	300
CAACAATTAG ATCACTTTGT TTTGTAAATA GTTCAAAATT CTTTCAATA ATTACGTTAT	360
CTATACTAAC GTTTAAATTT GGTTCATATA CTAAATTTT TATACCGACA ATCAATAGTT	420
CATTAATTAT ACTTAAATA GCTGACTCTT TGTAATTATC TGAATTATAT TTCATCCCCA	480
ATTTATATAT TCCTACTATC TTTGGCTTTC GTTCCAATAT TTGTTAACT ATGAACGTGTT	540
TTCTATTGTG GTTTGAAATA TCAATCGCTT CTATCACTGG GGCATTTATT TCTATAAATT	600
CTTTTTTTAA TTGTTTAGTA TCTTTGGGAA GACAATATCC TCCAAATCCA AAAGAAGGAT	660
TATTATAAAA ATTTCCAATT CTTGGATCTA AACAAACACC TTTTATTACA ACTTCAGCAT	720
TTAAGCTTCT CCTCTCAGCA AAAGAATCTA GTTCATTAAA AAAGCAACAC GGAGAGCTAA	780
GAATGTGTTA GAAAAAAGCT TAATTGCTTC TGCTTCAGTA GGAGAACTA ACATAACATT	840
TTTAATATTG GCAGTACTAT GAGTACTAAT CGAAAGGAAC AACTCTGCAA TTTTCTTCC	900
TTCAACTGTC TCATCTCCAA CAACTATGCG ACTTGGATAT AAATTATCAT ATATAGAACA	960
ACCTTCTCTC AAAAATTCAG GGACAAAAAT GATATTTTTT GTATCAAACA GCCTTTTAA	1020
TTTGTTTGAA AAGCCGATCG GAACGTGTTGA CTTTAAATA ATCTTTCCAT TAGGTTTAC	1080
CCTCAGAATC TTCGATACCG TTTGTTGAT TTCATATGTA TTAAACTAC CAATTTTCTC	1140
ATCATAATCT GTCGGAAGCG CAATAATATA ATAATCAATA TTATTTTAA TTTCAGAAAA	1200
TGTATCAAAA AAAGTAATAT TTAAGTTATT CTCGCAAAAA AACTTCATAA GCTCTTCATT	1260
TTTAGATGGA AGAATGCCCT TTTTAAATT ATTTATTTTT ACAGAATCTA TATCATATGC	1320
AACAACTTTA TATTTAGATG CAAATAGTAA CGCGTAGGCC AGCCCAACAT GCCCCAAACC	1380
AATTACTGCT ATATTCATAA AACTACTTCC TTATTTCTTA ATCCAAAATC TAATAGAATA	1440
AGCTGCCCA TTCCPTAAAT ACAACTCTTT AATATTGTTT AAAAGTTTTT CAACTGATTT	1500
CCAGATTATC AAAATCTGAG ATTTATAGCA CAATATTGAT GATATTCTAT CAATATAATT	1560
TTTTTCATCA AGTTCTCTT GATACATTTT TAATCTTTA GTTTTCCCA TATAACTAAC	1620
CATACTACTA TCACTTACAT ATGGGAAGTC CTCATAATAT ATTACTTTAT AACGCATAAA	1680
TTCAAGCGCC CTTCCAATAC TATTCACAAA AACATGAGCA ACATGGTCAC CAAGTGAAAG	1740
CGGACAATAT ACGACACATT TGTCGTCTAA ATGCATTAAC AGCTCTTTTA TGATATCATT	1800
CTTTAATGTG TCCTCATTTT TTAATTCACT ATAGATATGA CGGTATAGAA AATTGCCATT	1860

1023

TCTATCTTTC CTATAGAGAC ATTCATAGTA CGATAAGTGT CTAAAATCAC ATTGTAGACG	1920
TTCACAAGCT AACCTGTCTT CTTTCTTCCT TTCTTCAATC GGATATTTCC CAAGGTTACA	1980
CAACTTATGA AATTGCTTAG CAGAGGGCTG TAGCTGTTGG CTCAAAGGGT AACCAGAAAA	2040
TATAGTAATA ACAAGTACAA TTTCTCCTTC TGAAGTTAAT TTTGAAATAT AATCACCACA	2100
GGAAAAAATT GCGTCATCTA AATGTGGAGA TAAAAAGATA TACTTAGTAT TGTTACTCAT	2160
AACCATTCCC TCTACAATTT ATCTAAAAAC TCACTAAGTG TCTGATTAAA TTCCACATCA	2220
TCAAAAAAT TCACCTTATT CTTAATAATG AATATTTCTG TAAATAAACA TATATATAAA	2280
TATTTCAATA TCCTTTCAAT ATCATCCTCT AAATTCCTCT CAATATTTTG TATCAGCCCA	2340
TTTACAATCT TATTAAAAA GATAAGCTCT TTATCTCTAA AATTAAATAT TTTCATACAA	2400
CTGTTGTATC GAAAAATATA TAAATAAAT TTTACTAATG TTTGAATATT TAAACAACTA	2460
AATAAATGAG TTGTACCCGG GACACTATTT ATGTTATCAA GAACACTATC TTGAAACCTC	2520
AATCACAAGT TCTTTTGTG AAATTCCTTT TTATCGTTTA GATCTGATAT TTTTTTAGAC	2580
ATTTCAACAA TCTCAGACAT TTTATATGGA TATCTAGGAT GAATGCCAAA ACTATGCAAA	2640
ATGAAGTCAA CCCCAAAAGT TAGACAGAAT AAATCTAACT TTTGGGGTGC AGTTCATAAG	2700
ATTGGGATAT TTTTTTTTAG CTAGAACTAG TAGAAATATA TAGTCAAATA ACAGATACCT	2760
TAAGGGTTTC TCATCTACAT AAAAAATGA TACTTTTTTC TCTTCAGTAA TTACCTCATA	2820
AGCTTCACAA TAGAATCTCA TGTTTCCCTC CCCTATATTC TTAAATAAAA TCCTTTGGAA	2880
ATTGATATAT CTTAGTAAAA TATTGTTTAA GTTCCGGATG CGGAGCATGG GTAACAATAA	2940
TGACAGTCAA ATCCTCTCTA TCTAATATCT TACGTTCAAT CGCTAACGAA GTTCTCCTAT	3000
CGATAGCAGA AGTTCCTCG TCAATTAATA CTATTTCTTT ATTTCTAATT AGCCCTCTAG	3060
CTAAAGTAAT TTTTGTTC TGCCCTCCTG ACAGTAATCT CCCATCATCA CCAACATAAT	3120
AATCTAAAAT GTTATTAGGA AAATCTTTTA CACTCAAACC AACTTGCTCT AAAGACTGTA	3180
GTATTTCTTC ATCAGTATAA TTTCTTTCCA ATAAAATATT ATCTCTAATC GTACCTTCAA	3240
ACAAATAAGC TTTTGTATCT ACATATAGAA CATTGGAAC CATATTTAAA TAGGAGGTTT	3300
TTTTTATATC ATCCCGCAG AATCGCAATT CTCCACTATA ATCTCTCAA AAGCCATTCA	3360
ATAATTTTAA TAATGTAGAT TTCCCGCTC CACTTTCACC TAAATTTAAA TACTTTTCAT	3420
TACGTTGAAA AAAAAAATTT AAGTTTTTTA ATATTTCTTT ATCTCCATAC TTATAGCAAA	3480
TATTTTTTGC TTCATATAAC GGAAAAATCT TATTCACCTC ATTTGGTTTC ATATCATTCA	3540
TTTTATTGTA CTCAATTGGA TTAATTGAAT ACAATTTTAA AAAAAATAGC TTCGTACCAA	3600

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TAATAGAGGA TAATTGACCT CCTAATTCAC CTAGCGCTGT AAAAAATAACA CCTGTTAGTG	3660
CTCCTATTGC TTCAATAGTA CCAATTTTCA CTATTCCTTT TATTGCAAGA TAGCCTGTGA	3720
AAAAAACGAG AGATATCTGA AAAAAATAT TGAGAAAGAA GCTAATAGCG CCTGCTAACG	3780
TTTCTACAGT TGTCTTTCTT TGTATAACCA TCTTTAATAA AATTCCTGCT TCTTTAATTT	3840
TCTTAGGCAA TACATATAAA AGATTCAAGG ACGCTAACAC ATCAAATCCA TTCAATATAG	3900
TCTCACTAGA TTTTAAAAA GCTTCATTTT GGTAGTTAA ATTTAGACTA ACTTCTCGCA	3960
TTTTCGATGC AAAGATTTT GGTACAAGTA GCATAATCAT TAATGAAAAA AAGGTGGCTA	4020
CAGTCAATGA CCAATGATAG TGATTAAGAG TCACAACGTC AAATATAGTA CCAGAAATTC	4080
CTTTATTATC TAAAAAAGT TGTTTAAACG CCTGATCATT TAAAGTCTGA ACATCATTAT	4140
TTAGCCACGA AAGATATGTT CCTGATGATT TACTATGAAA TTCTTGATAG GTAGAGTTAG	4200
AGATGCTCTGT GGCAACTCTA TTTGGAATCT CTAGATTAAA CTCTTGGATC ACTTCAACCT	4260
GATAATTTTT CACTACCCAG TCAAGGAATA TTATCCACA CCAGACAATC ATTTGGTAGA	4320
TTGACAATT CAAAAACGC TCTAAATCA TCGCAATTAA TTCATTCAAC ACCAGAGCAT	4380
TAATAGTTGC TGCATAAATT AGCAATAATT GACCAGCAAC AATAAATATC GTTAATAAAC	4440
TAAATTTTTT TATATTTGAT TTTATAATAG TATACACAAT AGTTTCTCAC TTTCTAAATT	4500
TTAATTGAAC ATAGTTTCA TATATACAAT AGAAAAACC AAAATGATAT AATAACATAT	4560
ATTTCAAAAA AGAAATTCGT TAAAAATTTT TTCTTCTCTT GCCTTCTTGA TTACTTTTAA	4620
AGCCTTGATG TTGTCTCCTA TTAATAGTAA CCGCTTTATG TTTAAAGAAT AATATTCTTT	4680
TGTAACCAAT ATTCCTCTGT TGAAACTCAA TAAATTAAAA TATTTCTTAC AGTAATTATA	4740
ATATTCTTCA TCTGCATTAA TTGTTTTTTG TGCTACTCCA GTGATACCGT TTTCTTTACT	4800
GTGAGCGTAG TAATTCACCA AGAATTCTCG CACTATATCA ATTTGGTATC CTTGAACAAG	4860
TAGTTTTAAT AAAACAACAC CGTCCTGATG TGAATCTATT TTCTCAAAAC CATTAAATTAA	4920
TTCTAGCACC TCTTTTTTAC ACAACCAAAA TGACGTACCT GCTATATTGT GAACCATTTG	4980
AACAAACAAG GGATTTCCAA CAAAATCGGT CTTCTCCTCT TCTCGTGTAC CATTGGGATA	5040
AATTATTATT CCATAACTAC AAATAAAGC TAAATCTTTC ATCTACTCTT TTTTAAACA	5100
AGCCATCAAC TTTAAATTC GATCTGGCAT ATATTCAATC TCATCGTCTA AAAATGATAT	5160
ATACTTACCT CTAGAATTTT TGATACCTAT GTTCTGGCA TTAGTTGCAC CTAATCTTC	5220
ATTACTTAAA ATTAACTTAA TTCTATGATT GGTATAGCCA AATTGATGGA TAATTTTATT	5280
TCTTAAATTT ACATTACTAT AATTATCATC AATAATTATA ACTTCGATAT TTTTATAACT	5340
TTGATGTAAA CAACTTTCA CAGCTCTAAT CAGAGATTCA TACCTATTAT GTGTGGTAT	5400

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TATAATACTT ACTAATTCTT GATCTATATT CCTATCCATG ACTACTCTTC TCTAATAATT	5460
CATCATATAC TCTCATGGTT TCTACAAACA TTTTGTGCAC AGAAAAATGT TTTCTTATTT	5520
TTGATTTACT ATTCTCACCT ATATATTTCA AATACTCAGA ATCATTGAGT AAAAAATTAG	5580
CACAAGCACA CACTCCCTCA ACATCTTCCT TCTCAAATAA AAATCCATCA ACCCTATGTT	5640
CAATAATTTT ACTTAACCCG CCAACATTAC TAGCTAAAAC CGGAGTTCCT TGTGACATTG	5700
ACTCTAAAAC ACACATAGGT ATTCTTCTG TATCAGAAGG AATATACAAT AAATCCGATA	5760
TTTGGTAAAC TATAGTAGCT GGATAGATTT CACCAAGTAA CCTGAAATTA TCTCTACATT	5820
TCAAATGGCA AATTTTTTCT TTCAAAGCAG CCCACATACT ACCATTTCCA GCCATAATAA	5880
AAATCACATC TTCTCTGACT AAAAATAATT TTTCTGCAAA TTCAAGGAAT CTATCCGGCC	5940
TTTTTCTGG ATCCAACCTT CCAACATAAC AAATGATTTT TTGTTATTTG GAATACAAAA	6000
TTCTTTTTTA AAGTCTTGAA CACCTACTAC ATCTAAATCG CTATTTGATA CATTAATTCC	6060
GTTATTTATT GCAACTATCT TCTTATTTTT TATTATACTC TCCAATCTTT TTTTTCATAG	6120
TTTCAGATAC ACAAATAAAA GCATCTCCCA TAGAATATGT CCAAAATCA AAATAAGTCA	6180
AGAATTTCTT TTTTAAGTTA TATTCACCC ATCCATGGCA TGTATCACT GTCTTAACCT	6240
TTCCAAATCC ATTCTTGTC AGTTTTTTTA ACATATATAA AAAATAATTA GTTGAGTAGC	6300
CATGACAGTG TATAAGTTGG ATTTTAAATA ATTTTAAAT ATTTTAAACG TGTAAGGCAG	6360
TTTCAAAATT ATTTGAACAT TGAGTACAAT CAACATAGGC AATATCTAAA TTTTATAAT	6420
CATCAATAAC CTTTGAATCT CTAGATACAA TTATCAAAAT AGGGAATAGA GACA	6474

(2) INFORMATION FOR SEQ ID NO: 156:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4792 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 156:

TATTTAACGA TTTTTCAT GTCATTCCT CAAAATAGA ATACCTTATA ATCTTAACAG	60
AAAAAGAGCA TTTACGCCAT TATATGATAT CTATCTCTGT GATAAGTTTT TTTTATGGGT	120
AATTTAAAAG ACCAAACGCA AGATGGCAAT CAAGACCACT CAAAGAGAA CTGTTCCGAC	180
TAGATTGCGG TAGCGAAAGG CTACCCAAGC TGTGGAAAG ACGGCTAAGA AGTCCAGTCA	240
TTTGATTTGA GGAAGACTGC CAACCTTACC TGTCACACG CTTGAAAGAA TCAGGGCAAA	300

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GATAATGGAA	ACAGGCAAAA	ACTTCAAAAA	ACGCTCAACA	ATCGCAGGCA	GGCCCTTATA
CTTGACCAAG	ATGAAGGGAA	TCATACGGGG	AATCCAAGTC	ACCAAGCCAG	AGAAAATAAC
TGCTAATAAA	AGATACTTAC	TGACCATCTA	AAACCACCCC	CATGCTACAA	CCAAGTAGCG
TCGCAACAG	AACAGCTAGT	GACTGAGACA	TCACTGTCAA	GAGCAAAAAG	AAGGACACCG
CAACAACCTGC	TAGGATAATG	AGCAGATTGC	GGACAGGAAT	CCGTCTTTGC	ATAATCTGAA
ATTGCGAAGC	AAAATACCAA	TAAACATCCC	AACCAGGGCA	AAATCCAAGC	CAAAGATTTC
TGGATTTGGT	AGCAGGCCAC	CCAGAGCCGT	TCCGACTACT	GTCCCCACAA	ACCAAGCCAC
ATAGCTGTTA	AGATTGTTTC	CGTGATCCA	CATAGGATTT	ACCTTGCTCG	TATGGGCCAA
TTCACCCATC	AAAACGCCAT	AGGTCTCATC	TGTCAAGATA	CTAGACATAC	CGATATTGTA
CCAAAGACTG	GTATGACGGA	AATAAGTCGA	TGCGTGTAAG	CTCAACAAAA	AGAGACGCAA
GTTGATTAGA	AAAACCGTCA	TAGCAATAGC	TGCCACAGGA	GCTTGAACCA	CAATCAGTGC
CAACATGGCA	AACTGGGCAC	TCCCAGCATA	AACAAAGAGA	CTCATCAAGC	CCATCTCAAC
AGGTGTCACA	TAGGGCGCAC	CGATAATTCC	ACAGGCCAGG	CCGATACTGA	CATAGCCAAAG
AGCCGTTGGC	ATGGCTGCCT	GCGCCCCCTC	CTAAAATCCT	TTTTCTTTCA	TCTTTCTCCT
CATATTGTCT	TAATAATACT	CAATGAAAAT	CAAAGAGCAA	ACTAGGAAAC	TAGCCGCAGG
TTGCTCAAAA	CACTGTTTGT	AGGTGTCAGA	TAGAACTGAT	GAAGTCAGCT	CAAAACACTG
TTTTGAGGTT	GTGGATAGAA	CTGACGAAAT	CAGCTCAAAA	CACCGTTTTG	AGGTTGTGGA
TAGAACTGAC	GAAGTCAGTA	ACCATACCTA	CGGCAAAGTG	AAGTCAGCT	GTTTGAAGA
GAGTTTCGAA	GAGTACAAGT	AGGCTGAAAA	GAATCCAACC	ACAGCATGGA	CTATTATATA
GCAGATTGAA	ATAAGATGAG	AACAAATCGA	TTGGGAAAGT	AAAATTAATT	TCTATAAATG
TTTTAGCAAT	TGTTTCGTAC	TATTTTAGAT	TCAGTCTATT	ATAACACATT	CAGAAAAGAG
AAAAAAGTCT	GTGATTTTGT	ACCATCATAA	AAAGACTGGC	AATCCAGTCT	CAAACATATA
TTATAGAAAT	TCTCCACTAA	ATACTTTCAC	GAATATTCAG	AAGCATAACA	AAGGCAACTA
GAAGAAATAG	CAATAAAACA	AAGCTAACTG	CCAGAGTTCC	AAAGCTAGTA	GCAATGGTTA
CCAAAGCTAT	TGTAATAAAG	CTAGGTAAAA	CAACCGTAAT	GGCACCGATA	GAGGATTGAA
CTGCTCCCAT	TGACTCCTCA	GGTATTTGTT	TAAAAACGAG	TTCTTGCAAT	CTAGGAGAGA
GAACACCTGC	AAAAAAGGCA	TCCAAGGTAC	TAAAGATGAG	AATCCAGTCA	AAACGAACTG
TGGCAAAATCC	TACTAGAAGA	AGCAACTGGA	TGACAAGTGA	GGCATAGAGA	GCTGTTTTTA
TGGAAATGGT	ATGTTGCAGA	TAGCCACTTA	CAAGGCTTCC	GACAATCAGG	GCTGATAATT
CTAGTGTGGC	TAACAAGGCA	AGAGATTGAC	CAGTTTGTA	ATTCAAAAAG	GGCTGGTTCC

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TTAAAAATAG AGTGGAAATA GGAACCGTAA CATTATCAC TGCTTGA	2160
CTA GTAGAGATAA TAAACAAAAC CAAGAGCACC TTATTCATAT TCCATATCAA	2220
TTTCGATGAT TGGAGCAAAT GCTGGCAAAA GGATTTTACA GAGAGTCCTT	2280
CTTGATAGCT AATCGTTTTT TCTACTTTCA AGAGGTCAGT TTTTATGAAG	2340
AGGATACCTA AAAATGCGAT TAAAAAGGTA AGAGCGTTCA GTAAGGAAAT	2400
AAACTGGATG GATAGAATGC CTAGTAAGAC TCCTCCTAGG ATATTACTGA	2460
TTGTTTTTAC TAAACTAACA GTTGACTGTT TAAAGCCAAT AGCTTCTGCC	2520
AGATGGTCTT GCCCAATAAT TCTAATGAAA ATCGGAGTGA GCATGGCGCC	2580
TGAAAAATA CTCAATGTGT CAGACAAGAG GTTAATCAGA CAAATAAATG	2640
CTACTAGCAA CAAGGAGAAA GACTGCCCTG AAAGTGATAA AGACACTATA	2700
GAGTAAAGCA AAAATTTTGC AAACTAATG ACTGTGTATT TCAAGACACG	2760
ATGATGTGA AAATCCGCCA AAATCCCAG AAAGATTGT AGAACTTGGG	2820
GCAGGGTTTC TGAAATCGTG ATGAGTAAAA TCGCCAAAGG GGCAAAAGAT	2880
GCATCTGCCA CATAATTAG GAAGCCAGA TAAAAATCG TATCCCCAAG	2940
CGTTGAAATC CACTGGTTGA TAGTTAATTG CCTAAAATCT CTATTTTGAA	3000
GAAATACTTT CATCACAACT CCTTCTTAAG TTCAATGGG AATCTTTCCC	3060
CAAGGATAGA CCGCGATACT ACTAACAACC AAAATTACAG TAACATCAAA	3120
AGCTGACCAA TGCCATTGTA GACTATATGC AGTCCAATAG GCCAATAAAT	3180
TGACTTTGTC ATTTCTAAATA AGACTGCAAA TATAAGACCT CCACCCATAT	3240
AGAAGACAAA GTCTGTCAAG ACCCAACCGT GATTACTAAT GTGCAGAGCC	3300
CCAAATAAAA GAGCGGAACC AAGTACATCT AGCCCCCAT TCTTTCCTTT	3360
TTCCAGAGCA GTCATCACTA ATCCACGATA AATCATGTCT TCAAAAATGG	3420
GACCTGCAAT CACAGGATAA AAAAAATACA TCAAAAATGC TGTAGCCCTT	3480
GTAAGTCTG GAGCAGCATG TTGATAAGAA ATTTCAATTC GAGTAGGTGG	3540
GAAAAGAAAA AAGGTAACGA AATTCCAAAC AACAAAAGCA AGCAGAGCTA	3600
GGAAGGAATA GAAAAGATAG GATCCTTTAA ACTTCTACT ATTGATTTC	3660
TGCCATTTCC CCGACCAAAT CATAGCAATA AGAGCAAATA AAACCACAAG	3720
AAAATTCAAC ATCATATCCG ACAGATAATA GGCAAAGTCA GATAGCCCAG	3780
TAACAAGGTC GCTGCGTAAA ACTAGAACAC TGAACCTCTG GTCAGCAATA	3840
ACTAGTAGAA AAATATAAT AAAGTAGCGG TGTGAGATTA TCTTTTCAT	
ATATCACCTT TCTAATATCC AAATACCAAT AAAGTAACAA TGAGTAAGAA	
ACTATTCCAT GAAGCATGCA GAGCTATAGC CCAATAGATG GATCGGGTGT	
AGCGAAACAT CATACAAAAT ATCAAGCCCA TTCCAAAATA CTTTATGAAA	
TCTGTCGTTA TCCAACCATA CTGCAAAACA TGCATAGCGC	
CAATATGGC AGCGGAAACA AGAACATCAA GATAGTATCT CTTAACTTTA	

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GATAAACTTG TCATCAAAAG ACCACGACAA ACAACCTCTT CTGATACAGG TCGGATAATA	3900
CTAGTATAAA GTATTCGCGT AACAAAATAG CTAATTCCTG TTAAATGGT GGCTACTTCT	3960
ACGACTGTAC TTCCATTCTG GGTACGAGGA AAGATATAGG TTGTTAGATT TGCCACACG	4020
AACAATAAGA AAAAAGAAAG AAGGAAAACA CCCAGGTAAG ACCAACGAAA CTGGAAACGA	4080
CCACACTCTT TCCAATGTTT ACTTTTGACA AAAGCAATTG TAGCTATAGT TCCCAGAATA	4140
AGTACCAATA AAACCTGGAA CACATAGTAC ATATTATCAG ACAAAGCAAC CATAAAATCT	4200
AAGTCTGATG TGACATTAAA AATGAGGTAA TAAGTCAAAA TCAACAAGCC AGTTGCTAGG	4260
TGAAATTTCA CTTCTTTCAT TTTCTTCATC CTATTATCTC CTATAAGAGC CTATCTTCTA	4320
CGGCGGCCAA ACAATCCATC TGCTAAATCT ATAGTCCAAT CAAAAGCTCC ACGATTAGGA	4380
CTCATCCCTT GATTGCCCCA ACCAGGGTAA ATTCCTGGGA CGCCCCAACC AGATATACCA	4440
CTTCTTCCAC CACCTCCCAT AGAATTTACG AGGTTGCCTC CTCTAACATC TTGCAACTCA	4500
GCTCTGTCA ATTCCATTGT TTCTGCAAAT TGTAATTTA ACATCTTTTA CACTCCTTCA	4560
ATTATCTTCA TTTGTAAACC ACTTCTGCGA CCTAGGATTT GCTTCAAGTG CTTTACAAGT	4620
ACAGTATAAC ACGAACATTG GCTTATTTTA GAAAATCGCA TATTTGATAT TTTTCTTAT	4680
AGAAATTTCA GATTGCGAT TTTGGTGAAT TTGATTACTT CTCTGGTATA ATAAAGTTAC	4740
TACTAATGAG GAGTGGAGAA ATATGAAGAA ACAAATTTTA ACATTATGA AA	4792

(2) INFORMATION FOR SEQ ID NO: 157:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 157:

CCGTCTCGG CGACGCCCAT CTGATGAAGC TATTTATGAG GGAACTGGC AAGCTGGAGA	60
GTCAGAGTAT CTAGCTTTC ACCGATTGCT GTGGCAGCAG ATGTGCAGGG AAAAGGAGTT	120
GCTCAAACCT TCTTAGAGGG CTTGATTGAA GGTTTTGATT ATCTTGATTT TCGCTCAGAT	180
ACGCATGCTG AAAACAAGGT TATGCAACAT ATTTTGTAAA AACTTGGTTT TAAACAAGTC	240
GGTAAGATGC CAGTAGATGG CGAACGCTTG GCCTATCAAG AATTAAAGAA ATAATGCAAA	300
AGAAGTATGT AAAAATCCTC TACTCCTCAC CAATTGGTAT TCTATCACTT GTAGCTGATG	360
ACCATTATTT GTATGGAATT TGGGTTTCAGG AGCAGAAGCA TTTTGAGAGG GGACTAGGAG	420
ATGAAACGAT AGAAGAAGTT GTTAGTCATC CTATTTTAGA CCCAGTTATT GCTTGCTTAG	480

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ATGATTACTT TAAAGGCAAG CCTCAGGATT TATCCAACCTT GCTCTTGGCG CCAATCGGAA	540
CGAATTTTGA AAAGAGAGTT TGGGACTATT TACAGGGCAT TCCTTATGGT CAGACAGTGA	600
CCTATGGACA AATTGCTCAA GACCTGCAAG TGGCTTCTGC TCAAGCAATT GGTGGAGCAG	660
TGGGACGCAA TCCTTGGTCT ATCCTAGTAC CTTGTTCATCG TGTGTTGGGA GCAGGCAAGC	720
GTCTGACAGG TTATGCTGCA GGAGTGAAA AGAAAGCTTG GCTCTTGGAG CATGAAGGAG	780
TAGATTTTAA AGATAGAAGC AATAGAAGGA GAAGCACATG TTAGAATTTA TCGAATACCC	840
CAAATGTTCA ACTTGTAATA AAGCAAAACA AGAATTAAAT CAATTAGGTG TGGACTATAA	900
AGCCGTCCAT ATCGTGGAAG AAACACCTAG CCAAGAAGTC ATTTTGAATT GCCTAGAAAC	960
CTCAGGATTT GAATTGAAGC AATTTTTCOA CACCAGTGGT ATCAAATACC GTGAATTAGG	1020
GCTAAAAGAT AAGGTAGGAA GTTTGTCAAA CCAAGAAGCG GCTGAGTTGC TAGCAAGTGA	1080
CGGTATGTTG TTAACCGGC CCATTTTACT AGAAATGGA ACTGTTAAGC AAATCGGTTA	1140
TCGAAAATCT TATGAGGAAC TGGGACTGAA ATAGTTTTA TCTATCTCTT TGATAGATAA	1200
AATATATAAC TTCCCTGTTT CAAAGTATGA TAAACTAGTA GGTAGACAAA GTCTGTATCT	1260
GACCGTAGCA AATAATTCA TTGACGGCAG AAGCATGGTA GCATGAATCA TTATCAGAAG	1320
AGGATGTTTT TATGAATGTT ACAACGATTT TAGCATCAGA TTGGTACCAA AACTTGATGC	1380
AATTGATTCC GGATGGCAAG CTGTTTAGCC TACGTTCCGT CTTTGATGGA ATCCCTAGAA	1440
TTGTCCAACA ACTTCCAACA ACAATTATGT TGACAAATGG TGGTGCCCTT TTTGGCTTGG	1500
TTTTGGCGCT TCTTTTGGC ATTGTGAAGA TCAATCGTGT CAAGATTTTA TATCCCTTGC	1560
AGGCCTTCTT TGTTAGTTTC TTAAGGGA CACCGATTTT GGTGCAACTC ATGTTGACCT	1620
ACTACGGAAT CCCTTTGGCT TTGAAAGCCC TCAATCAGCA ATGGGGAAC TGTCTCAATA	1680
TCAATGCGAT TCCAGCTGCA GCTTTTGGCA TTGTCGCCTT TGCCTTTAAT GAGGCAGCTT	1740
ATGCTAGTGA AACCATTGCT GCAGCCATTC TCTCAGTTAA TCCTGGTGAG ATTGAGGCGG	1800
CACGCAGTCT GGTATGACC CGAGCGCAAG TTTATCGACG AGTGATTATT CCTAATGCAG	1860
CGGTGGTAGC TACTCCAACC TTGATTAATT CCCTCATCGG TTTGACCAAG GGAACATCTC	1920
TAGCTTTTAG TCGGGTGT GTGGAAGTCT TTGCCAAGC TCAGATTCTA GGTGGAGCTG	1980
ATTATCGCTA TTTTGAACGC TTCATCTCCG TTGCCCTTGT TTATTGGGTA GTCAATATCG	2040
GAATTGAAAG CCTCGGTCGT TTCATCGAGA GAAAAATGGC TATTTCTGCA CCTGATACAG	2100
TGCAACAGAT GTGAAAGGAG ACCTTCGTTA ATGATTAAGA TTTTGAATTT AAGCAA	2156

(2) INFORMATION FOR SEQ ID NO: 158:

1030

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 158:

GTATCTCTAC ACATGCTCTC AATCGATTTT GTTGCTCCTCC AATTTAATTC CTTATATGCT	60
TTGCTCTGCAT TTGCATAACA AGTTGCAACG TCTCCTGAAC GTCTTGGAAC TATTTTATAA	120
GGAATAGGGA TCTTATTAAC ACTTTCAAAT GTATTTACAA GTTGTAATAC ACTAGTGCCT	180
TCTCCCAGAG CTAGGTTATA GATATAAACA TCTGTTTTTT CAGATACTTT TTCTAAAGCT	240
TTTATATGTC CTATTGCTAA ATCTACTACA TGGATATAAT CACGCACACC AGTACCATCA	300
AGCGTATCAT AATCATTTCC GAACACACTT AGCTCTGATA GCTTACCTAC CGCTACTTGT	360
GCAATATAAG GCATCAAGTT GTTAGGAATT CCTGAGGGAT CTCCCCAAT CAAACCAGAC	420
TCATGAGCAC CAATTGGATT GAAATAACGA AGCAACGCAA TACTCCATTC TGAATCTGCC	480
ACATGAACAT CTTTTAAAT TTGCTCAAGC ATCACTTTTCG TATACCCATA AGGATTTGTC	540
GCACTTGTTT GCATCGTCTC AATTAGAGGT GACTGATTGT TAATTCATA TACAGTCGCA	600
CTTGAAGAAA AGACAATCTT TTTAACATTA AATTCTGACA TCACTTCAAC AAGTGCCAAT	660
GTACTCATAA TATTATTTTT GTAGTACATC ACAGGCTTTT GCACGGATTTC TCCGACAGCT	720
TTATAACCTG CAAAATGAAT TGCAGCATCA ATCGATTCTT GTTCAAATAC CTTTCTCAAT	780
GCTTGTTTAT CACAAACATC TAATTCGTAA AACACGGGAC GTATTCCTGT AATTGCTTCA	840
ATACGGTCTA GCACCAAGAT GCTAGAGTTC GAAAGGTTGT CGACAATGAT AACTTCCTTT	900
CCTAAATTTA GTAATTCTAC TACGGTATGG CTACCAATAT AACCAGCTCC GCCTGTTACC	960
AATATTGCCA TCTGGGTTTC CTCCTAATTA ATTCCAACCG ACTTAACAAA TCTCATAAAC	1020
GCTTCATGCC CAGACGGTGT ATTCTTATAA ACTCCTGCAT CTTCCAGAAC TCTCGCAAC	1080
ACTTGTCCTG CTTCTGTTG AACTACGCTA TTAACCTCTT CTTTATTAAT GCGAGGATAT	1140
TTTTCTTTCA ATTGGTCGGC CCATTCTAAA TGATAATCCG CAATTGCATT ATCCTCTCCT	1200
AAAAGATATT TTCCAACCTC TTCTAACTCT GGTTTCAAAC GAGGTGGTAA TATCGCAAGT	1260
CCCATCACTT CGATTAAACC GATATTTTCC TTTTAAATAT GTTGATACATC TTGATGAGGA	1320
TGGAAACAC CATCTGGGTA TTGTTCACTA GTATGATTAT CTCTTAGAAC AATATCTAAT	1380
TCGTATCTCC CGTCCACTTT ACGAGCAATA GGAGTCACCG TATGGTGTGG GACATCTTCA	1440
GTCATAGCAA TGATGCTTAC TTCTAAATCT GAATATTCTC TCCACTTATT TAGAATTTTA	1500

1031

GTAGCTAAAT CTAACAAGCG ATTTTATTTT TCACTTTGTA ACCTAATTAC TGACATTGGC	1560
CATTTTACAA TACCAGCATT AACATCCTCA AAGTCTTTAA AACAAAATTC ACTCTCAAAT	1620
TTTGCTTTTT CCATTGGGAA AATATGTTTC CCTCCCTGGT AGTGTTATG ACTAAGAATG	1680
GAGCCTCCTG AGATAGGAAG ATCAGAATTT GAACCAGCAA AATATCCTGG CAAAATATCA	1740
ACAATCTCCA ATAATTGTTT AAATGTTTTA GAGGTAATAG CCATTGGTAC ATGTTGACTA	1800
TTCAAAAATA TCGCATGCTC ATTAAAGTAT GAGTAGGGAG AATACTGGAA TCCCCATACT	1860
TCGTCACCAA GTTTCACCG AATAATTCTA TGATTGGAAC GTGCTGGATA ATTTATTTCGC	1920
CCCTGATATC CTTCAATTTT CATACATAGT AAACATTTGG GATAATTAGT TGCTTTTACT	1980
AATTTTTFCAG CAGCAATTGT TTTTGGATCT TTTTCGGGTT TTGACAAATT TATCGTAATC	2040
TCTAGCTCTC CGTATTTAGT TGATGCTCGA AACTCAATAT TCTTAGCAAT AGCAGAAAGT	2100
TTAATATAAT CACTATCTTT ACTTAACCTA TAAACTCTT CAACTGCTTC TTGAGGTGAT	2160
ATATCATATG AACTCCAAA AATATCATTT AATCGACTAG GTAAAGGAAC TATGAAATTC	2220
ATTAACCTCG CTCCTAAACA TTCCTTTTCC TCGATTAAAT CTTTAATTTT ACCGTTTTT	2280
AAGCGGATTT CCACTAAGTA ATCTTTTATT TGTTTCAGGT CATTTTCATC GGAAATGCGA	2340
TCAATTCCTT CCTCACCTAT TAACGCTAGT ACTCTATTTT TCACATATAT TTTGTCAATT	2400
TCATTATACA TTCCGTATTC AATTACTCTA TCAACAAAAT TATCAATAAT TGTTTTCATA	2460
TATTTTCTTT TCTAATTTAT GTTCCCATAT TTTCTATACA TTATCCATTT ATAAATTGCT	2520
TGCGTAGTAT GAGCAATTTT ATCAAGGTGA TGAATAATAT CTAAAGCACT AATTACTTCA	2580
GAAACGTTCC CATCATCTTC AAATATGTAA TTCATTATTT TCTTTTCCAT ATTTATACTA	2640
AGCTCTTCTA TCTCATCTG TTTTGTGATA ACAACCATAT CTAAACATCC AGATTGTTCC	2700
TCTCTATAAC AAGATATAGC CCTATTCATA TGCAGTCCGA TAACTTCATG AAGTATTTTT	2760
ATTTTGTGAA TAATTTTCTT CAAAATTTCA TTATTTTGAA GAATCTGTAG ATTTTTTAAA	2820
ATTTCAACAA TTCTATCCCC AATACGTTCA ATGTCAGTTG ATATTTTAT TACACTAATA	2880
ATTCTTCTTA AGTCATATGA AACAGGATGT TGTAAACAAA TTAATCATA TCCTTTTTTA	2940
TCAATATTTA GAACTGACTC ATTTATGATT AAATCTTCTT TAATCAATTC TACTCGTTCT	3000
TCATTTGATA AATATTCAAA TAACTTCTCA TATTTATCAA GCACAGATAC CCAATGGTC	3060
TCTAAATTAT TTGATAATTC TATAATTTCA TTTTCTAAAT ATAACCTTAA CATTTAGGTA	3120
CCTCTTCTTA ACAAAGTTCCG	3140

(2) INFORMATION FOR SEQ ID NO: 159:

1032

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9048 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 159:

CCGGATGATT TCCTGGTCAG ATAGGGGGAA AGTGACTTCC TCAGCAATCG CGCGTAGAGT	60
AGGATTCCCT TCACGGATAA TATCGTTCAT ATCAATTAAAG TGAGCAGCTT TTGTAATACG	120
TTCTATTGCA GACATTTTCT CTCCTTATAT TATGTTTAGT GCAGTTAGCT ACTGCCAAAG	180
CCCAAGTGGT ATACTTGGA TAAGCCACTG TGGATTAGTT CATTTTCTTT CATTACCTCT	240
ACATGATATC ACAAATGAC AAGAATTGAA AGCATTATGG CATTTAGGAT TTATAGAAAA	300
TAGATAGGAA GTTCAATTCA ATTGTGAAAG AAATACTTAT CTGTGATATA ATAAAAAGAA	360
AAGGCTTGCA TAAGAAAGTA GGGAGAACGA AGATACAAAG AAGACAAAAT CGAAATCAGG	420
GTGGTTTAGC TTTTCGTTT ATGAAGGGCT TGGTAAACTT TTTAGGAGTT ATCGCAAGTG	480
GAGCAATAAG GGATTTGTGG CGATACTCTT GCTAGCAGTT GGTTTATCAA TGGGCTTGGT	540
CTTGTGTTT GAAAGCTTCC AAGGAATCCC TTGACTAGTC AAAAACGAGA TACTATTTCT	600
CAAGAGGGGA CTAAGCAAAA GTCTCAGGAG TAGGAAGAGG AAAAACTGC CAGAATTATG	660
GCCCACGGGG ATTTGCTCTA CCACGATGGA CTTTTCTTTT CAGCTAAAAA AGAAGACGGT	720
ACCTATGACT TTCATGAAAA TTTTGAGTAT GTGACTCCTT GGCTCAAGCA AGGGGACTAA	780
GCAGCAGATT TAGCTATTGG TGATTTTGAA GGAACCATTA ATAAGGATCA TTATTTAGCG	840
GGTTATCTTC TCTTTAATGC TCCTGTTGAA GTTATGGATG CTATTAAGGA GGCAGGTTAT	900
CATGTGCTGG ATTTAGCTCA TAATCATATT TTGGATTTCG AAATTGAGGG AGTTATTTCA	960
ACGGCCGATA TTATTGAGAA AGCTGGAATC ACTCCAATCG GAGTTTATAC GCACGAACCA	1020
CGTGATCAGG CTCCGCTGGT CATTAAGGAA GTGAATGGA TCAAGGTGTC ATTGTTAGCC	1080
TATTCCTATG GTTTCAATGG AATTGAGCAG TATATTTCTC AGGAAGACTA TAATCGTTAT	1140
CTTTCAGATT TAAACGAAGA TAAGATGAAG GTTGAAATTG AACGGGCAGA GAAGGAAGCA	1200
GATATCACCA TTATCATGCT TCAGATGGGT GTTGAGTATC GATTGGAACC AACTGAAGAA	1260
CAAAAAGCTC TTTATCACAA GATGATCGAT TTGGGAGCGG ATATTATCTT TGGAGGGCAT	1320
CCTCACGTTG TTGAACCATC TGAACCGGTT GAAAAAGATG GAGATAAGAA ACTCATTATC	1380
TATTAAATGG GGAACCTCAT TTCCAATCAA CGAATTGAAT CTATGGGAGA TGAAGAGAAT	1440
GCTAAGTGGG CTGAACGTGG TGTTCATGAT GATGTCACCA TCAAGAAGAA GGATGGAAAA	1500

1033

ACAACTATCG GAACAGCTAA AGCTCATCCT ACTTGGGTCA ATCGAACACC AAAGGGAACC	1560
TTTTCAACCAG AAGGATATCC CTTGTATCAT TACCAAACCT ATATTTTGGA AGATTTTATA	1620
GAGGATGGCA GTCATCGTGA CCAGTTAGAT GAAGCGACTA AGGAACGAAT TGATACAGCC	1680
TATAAAGAAA TGAATGAACA TGTGGGATTG AAGTGGTATT AGCTTGAATC CAGAGGAAAG	1740
TAAATGATGA TTAAGGTAAT TGCGACAGAT ATGGATGGGA CCTTGCTGGA TGCTAGAGGT	1800
CAGCTTGATC TCCCACGATT GGAAAAGATT TTAGATCAGT TGGATCAAAG GGGCATTCGT	1860
TTTGTCATTG CGACGGGCAA TGAAATTCAC CGCATGAGAC AACTACTGAG TCCCTTGGTG	1920
GATCGAGTGG TTCTGGTTGT TGCTAATGGC GCTCGTATTT TTGAAAACAA TGAATTGATT	1980
CAGGCTCAGA CATGGGATGA CGCCATTGTC AACAAAGGCTT TGAATCAATT CAAGGGTCGA	2040
GCGTGTCAGG ACCAGTTTGT TGTAACGGGG ATGAAGGGTG ATTTTGTCAG GGAAGGTACG	2100
ATTTTACAG ATCTTGAAAG TTTTATGACT CCAGAAATGA TTGAAAAATT CTACCAACGG	2160
ATGCAATTTG TGGATGAATT AACATCTGAC CTCTTGGTG GTGTGCTCAA GATGAGCATG	2220
GTGTGTGGTG AGGAACGTTT GAGTTCGGTT TTGGAAGAAA TCAATGCTCT CTTTGATGGC	2280
CGTGTCGAG CTGTATCCAG TGGCTATGGT TGCATTGATA TCCTCCAAGC TGGGATTCAT	2340
AAAGCATGGG GCTTGGAGGA ATTACTCAAG CGCTGGGACT TGAAATCCCA AGAAATCATG	2400
GCTTTTGGTG ATAGTGAAAA TGATGTTGAA ATGCTTGAAA TGGCTGGAAT TGCCTATGCG	2460
ATGGAATAAT CTGATGAGAA AGCCAAAGCT GTGGCGACTG CTCTAGCACC AGCCAACAGC	2520
CAAGGAGGAG TTTATCAAGT CTTGGAAGAC TGGTTAGAAA AAGGAGAATG AAGTGGCAGT	2580
ACAGTTATTA GAAAATTGGC TCCTAAAGGA ACAAGAAAAA ATTCAAACTA AGTATCGTCA	2640
CCTAAATCAC ATTTCTGTTG TAGAACCAAA CATTCTTTTT ATTGGGGATT CCATTGTCGA	2700
GTATTATCCT CTACAGGAGC TATTTGGGAC TTCAAAGACG ATTGTCAATC GAGGAATTCG	2760
TGGCTATCAG ACAGGACTGT TACTAGAGAA CCTTGATGCT CATCTATATG GTGGAGCAGT	2820
AGATAAAATT TTTCTTCTGA TTGGGACAAA TGATATCGGA AAGGATGTTT CTGTGAATGA	2880
GGCTCTCAAT AATCTCGAAG CTATCATTCA ATCCGTTGCT CGCGATTATC CATTGACAGA	2940
GATTAAATTG CTTTCCATTT TGCCTGTCAA TGAGAGAGAG GAGTACCAGC AGGCAGTCTA	3000
TATCCGCTCG AATGAAAAA TTCAGAACTG GAATCAAGCC TATCAAGAGC TTGCATCTGC	3060
CTATATGCAG GTGGAATTTG TGCCAGTATT TGATTGTTTG ACAGACCAAG CAGGCCAACT	3120
CAAAAAAGAA TATACAACTG ATGGACTGCA CCTCAGTATT GCTGGTTATC AGGCTTTGTC	3180
AAAATCCTTG AAAGACTATC TTTACTAAAT AGCTAAATAA TGTAAATTT GAGCATAATA	3240

1034

TCTTGTAATAA AATTCTATAA TCCTTTATAA TAAAAAGTGA CGGAGGAATT TATGAATGTA	3300
AATCAGATTG TACGGATTAT TCCTACTTTA AAAGCTAATA ATAGAAAATT AAATGAAACA	3360
TTTTATATTG AAACCCCTGG AATGAAGGCC TTGTTAGAAG AATCGGCCTT TCTGTCACTA	3420
GGTGACCAAA CGGGTCTTGA AAAGCTGGTT TTAGAAGAAG CTCCCAGTAT GCGTACTCGT	3480
AAGGTAGAGG GAAGAAAAAA ACTAGCTAGA TTGATTGTCA AGGTGGAAAA TCCCTTAGAA	3540
ATTGAAGGAA TCTTATCTAA AACAGATTGG ATTCATCGAT TATATAAAGG TCAAAATGGC	3600
TACGCTTTTG AAATTTTCTC ACCAGAAGAT GATTTGATTT TGATTTCATGC GGAAGATGAC	3660
ATAGCAAGTC TAGTAGAAGT AGGAGAAAAG CCTGAATTTC AAACAGATTT GGCATCAATT	3720
TCTTTAAGTA AATTTGAGAT TTCTATGGAA TTACATCTCC CAACTGATAT CGAAAGTTTC	3780
TTGGAATCAT CTGAAATTGG GGCATCCCTT GATTTTATTC CAGCTCAGGG GCAGGATTTG	3840
ACTGTGGACA ATACGGTTAC CTGGGACTTA TCTATGCTCA AGTTCTTGGT CAATGAATTA	3900
GACATAGCAA GTCTTCGCCA GAAGTTTGAG TCTACTGAAT ATTTTATTCC TAAGTCTGAA	3960
AAATTCCTCC TTGGTAAAGA TAGAAATAAT GTTGAATTGT GGTTTGAAGA AGTATGAAGT	4020
GGACCAAGAT TATTAAAAAA ATAGAAGAAC AAATCGAGGC AGGGATTTAT CCCGGAGCCT	4080
CTTTTGCGTA TTTTAAGGAC AATCAATGGA CAGAGTTCTA TTTAGGCCAG AGTGACCCAG	4140
AGCATGGCTT GCAGACTGAG GCAGGACTAG TTTATGACCT AGCTAGTGTC AGCAAGTTG	4200
TTGGGGTTGG CACAGTTTGT ACCTTCTTGT GGGAAATAGG TCAATTAGAT ATTGATAGAC	4260
TGGTAATAGA TTTTTTACCT GAGAGTGATT ATCCAGACAT CACTATTGCG CAGCTCTTGA	4320
CTCATGCAAC AGACCTTGAT CCTTTTATTC CTAATCGTGA TCTTTTAACA GCCCCTGAAT	4380
TAAAGGAAGC GATGTTTCAT CTCAACAGAC GAAGTCAGCC AGCCTTTCTT TATTCGGATG	4440
TCCATTTTTT GCTGTTGGGC TTTATTTTGG AAAGAATTTT TAATCAAGAT TTGGATGTGA	4500
TTTTAAAGGA TCAAGTCTGG AAACCTTGGG GAATGACGGA AACTAAGTTT GGGCCAGTTG	4560
AGCTTGCTGT TCCAACAGTT AGAGGTGTAG AGGCAGGCAT AGTGCATGAT CCCAAGGCTC	4620
GTCTCCTGGG TAGACATGCT GGGAGTGCTG GTTTATTTTC GACTATAAAG GATTTACAAA	4680
TCTTTTtaga ACACTATTTA GCAGATGATT TTGCAAGAGA CTTAAATCAA AATTTTCTC	4740
CTTTGGATGA CAAGGAACGT TCTTTAGCAT GGAATTTGGA AGGAGATTGG CTAGACCATA	4800
CGGGCTATAC AGGTACCTTT ATCATGTGGA ATCGTCAGAA GCAAGAAGCC ACTATTTTCC	4860
TATCGAATCG TACCTATGAA AAGGACGAGA GAGCTCAATG GATATTAGAC CGCAATCAAG	4920
TGATGAACCT GATTGCAAAA GAAGAGTAAG GAGAGACATG TCAAATAGTT TAAAAGGGAC	4980
TTTACTAACA GTTGTGGCTG GTATTGCTTG GGGGTTGTCA GGAACGAGTG GCCAATACCT	5040

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AATGGCACAC	GGAATTTCCG	CTCTGGTCTT	GACTAACTTG	CGTCTTTTAA	TCGCTGGTGG	5100
AATTCTCATG	CTCTTGGCTT	ATGCTACTGC	AAAGGATAAA	ATACTGGTCT	TTTTAAAGGA	5160
TAGAAAGAGT	TGCTGTCTC	TTCTTATTTT	TGCTCTGATT	GGTCTTTTTC	TCAACCAATT	5220
CGCCTATCTG	TCTGCTATTC	AGGAGACCAA	TGCGGGAACA	GCGACGGTGC	TTCAGTATGT	5280
TTGTCTCTGC	GGAATTTTAA	TTTATAGCTG	TATCAAGGAT	AGGGTGGCAC	CGACACTGGG	5340
AGAGATAGTT	TCCATCATAT	TCGCCATCGG	AGGAACCTTC	CTGATCGCAA	CACATGGGCA	5400
GTTGGACCAG	TTATCCATGA	CACCTGCTGG	TCTGTTCTGG	GGTCTCTTTT	CTGCCTTGAC	5460
TTATGCTCTG	TATATCATTT	TACCCATAGC	CTTGATTAAA	AAGTGGGGGA	GCAGCTTGGT	5520
CATTGGTGTG	GGAATGGTCA	TAGCAGGTTT	GGTCGCCCTT	CCTTTTACAG	GGGTCTTACA	5580
GGCCGATATC	CCGACTAGTC	TTGATTTTCT	CCTTGCCTTT	GCAGGCATTA	TCCTTATCGG	5640
GACTGTCTTT	GCCTATACAG	CTTTCCTTAA	AGGAGCCAGT	CTGATAGGAC	CGGTCAAGTC	5700
AAGCTTGTGT	GCTTCAATTG	AGCCAATATC	GGCGATTTTC	TTTGCCCTCT	TAATAATGAA	5760
TGAACAATTT	TATCCCATTG	ATTTTCTTGG	TATGGCAATG	ATATTGTTTG	CTGTAACTTT	5820
GATTTCCTTG	AAAGATTTAT	TCTTAGAAAA	ATAAAAAAGA	CTCTTTGTCC	GTGACAGAGA	5880
GTTTTTGCGT	GGTAATCTAA	TTATTTTCAA	GATAAAATTC	AAAGCGTTTC	CCTACATATT	5940
GACTTTTTAC	GTATTCAAAA	GCAGTACCAT	CTTCTAGGTA	GGAAACCTGG	GTCAATCCAA	6000
GAATAGCATG	TCCTTTTTCA	ACTTCCAAAT	AGTGGGCAAT	CTTTTCTTTA	GCAAGGCGAG	6060
CATAGATGGT	CTGTTGAGAT	TTGCCGATAC	GATAGCCATG	TTTTTGCAAG	GTTTGGAAGA	6120
AATGACTGGT	GATTTCCTCT	TTTTTAAAGT	CCTTAATGAA	TTTTTCAGGA	ATAGAAGCAA	6180
CTTCATAAAC	TAGGGGAACT	TGGTCGGCAT	AGCGGACCCG	CTCCATTTCG	ATAATATTGT	6240
CCGTGGGAAA	AATTCCTAGC	TTGGCAACTT	CTTGCTCATT	GGGAATGGTT	TTTTTGTAGG	6300
AAATGAGCTG	GCTAGAGGGA	ACTTTACCTT	GGGATTTGAC	AAATTCAGTA	AACTGGTTTG	6360
TCCCTCGCAT	CTTTTCTTGT	ACTCGAGTAC	TGGAACAAA	GGTGCCGCTT	CCTACACGGC	6420
GCTCTAAGAC	GCCTTCTTCG	ACTAATAGAG	ATACGGCTTG	GCGGAGGGTC	ATGCGACTGA	6480
CCGCAAACTG	CTCAGCTAAA	TCTCTTTCAC	TGGGAAGCCT	CTCACCAATA	GCCCAACGGT	6540
ACTCGTCAAT	ATCCTTTTTT	ATCTGATCAT	GGATTTTTAT	ATAAGCAGGT	AGCATATTTT	6600
TCACTTCATT	TCTATCTTTT	CTCTATTGTA	CCCCAATAAA	CTAGAAAAAG	TCAAACCTTCG	6660
CCTTGTTTAG	TTGGTAATTC	GCCCTTATTT	GTGATAGAAT	ATTGAGAAAA	GATATTTCTT	6720
TTGAGAAAGG	AAAAAGATGA	GCAACATTTT	AACTGATTTG	CAAGATGTAG	AAAAAATCAT	6780

1036

CGTATTGGAC TATGGTAGCC AGTACAACCA GCTGATTTC ACGCGTATCC GTGAGATTGG	6840
TGTTTTTTCA GAACTAAAAA GCCATAAAAT TTCAGCTGCT GAAGTTCGTG AAGTCAATCC	6900
TGTAGGAATT ATTCTATCAG GTGGTCCAAA TTCTGTATAT GAAGATGGTT CATTTGATAT	6960
TGACCCAGAA ATCTTCGAAC TCGGAATTCC AATTTTGGGA ATCTGTTATG GTATGCAGTT	7020
ATTGACCCAT AAACCTGGAG GAAAAGTTGT TCCTGCAGGT GATGCTGGA ATCGTGAATA	7080
CGGTCAATCA ACCCTAACTC ACACACCATC AGCGCTTTTT GAATCAACAC CTGATGAACA	7140
GACTGTTTTG ATGAGCCATG GTGATGCGGT TACTGAGATT CCTGCTGACT TTGTTCTGAC	7200
AGGTACATCA GCTGACTGCC CATACGCAGC CATCGAAAAC CCAGATAAAC ACATTTACGG	7260
TATCCAATTC CACCCAGAAG TTCGTCATTC TGTATACGGA AATGATATCC TTCGTAACCT	7320
TGCCCTTAAC ATTTGTAAGG CTAAAGGTGA CTGGTCAATG GATAATTTCA TTGACATGCA	7380
GATCAAAAAA ATTCGTGAAA CCGTCGGTGA TAAACGTGTC CTTCTTGGTC TATCAGGTGG	7440
TGTTGACTCA TCTGTCGTTG GGGTTCCTCT CAAAAAGCG ATTGGCGATC AATTGATCTG	7500
TATCTTCGTA GACCACGGTC TTCTTCGTAA AGGCGAAGCT GATCAAGTTA TGGACATGCT	7560
CGGTGGTAAG TTTGGTTTGA ATATCGTCAA AGCAGACGCT GCTAAACGTT TCCTTGACAA	7620
ACTTGCTGGC GTTCTGACC CTGAACAAAA ACGTAAATC ATCGGTAACG AGTTTGTCTA	7680
TGTATTCGAT GACGAAGCAA GCAAGCTCAA AGATGTGAAA TTCCTTGCTC AAGGTACTTT	7740
ATATACAGAT GTTATCGAGT CTGGTACGGA TACAGCTCAA ACTATCAAGT CACACCACAA	7800
CGTGGtGGTC TTCCAGAAGA TATGCAGTTT GAATTGATTG AACCACCTCAA TACTCTTTAC	7860
AAGGATGAAG TTCGTGCTCT TGGTACAGAG CTTGGTATGC CAGACCATAT CGTATGGCGC	7920
CAACCATTC CAGGACCAGG ACTTGCTATC CGTGTCAATG GTGAAATCAC TGAAGAGAAA	7980
CTTGAAACCG TTCGTGAATC AGACGCTATT CTTCTGTAAG AAATCGCTAA AGCTGGACTT	8040
GACCGCGATA TTTGGCAATA CTTCACTGTT AACACAGGCG TTCGTTCACT CGGTGTTATG	8100
GGTGACGGTC GTACGTATGA CTACACGATT GCAATCCGTG CTATCACTTC TATCGATGGT	8160
ATGACTGCTG ATTTTGCCAA AATCCATGG GAAGTACTTC AAAAAATCTC AGTACGTATC	8220
GTAAATGAAG TGGATCATGT TAACCGTATC GTCTACGATA TTACAAGTAA ACCACCTGCA	8280
ACAGTTGAGT GGAATAATC GCAAAAAAAT TAAAAGCTTT GTAAATCAA CGGTTACAGA	8340
GGATTAAAAA CTGTAACCTG GATTAAAACG GGAACATTTG CTAAAAAGAA TAAATTGAAT	8400
AATAGTTCCA AGTGGTTTAC ATTTGGACAA AAAATTAGAC CGTAGTTTTC AAGCTGCCGT	8460
CTTTTGATAT ATATAATGAG AATTAATGGC TCTTTGTCAA CTGTAGTGGG TTGAAGTCAG	8520
CTAAGCTCGA GAAAGACAA ATTTTGTCTT TTCTTTTTTG ATATTCAGAG CGATAAAAAAT	8580

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CCGTTTTTTG AAGTTTTCAA AGTTCGAAA ACCAAAGGCA TTGCGCTTGA TAAGTTTGAT	8640
GAGATTATTG GTCGCTTCCA ATTTGGCGTT AGAATAGTGT AGTTGAAGGG CGTTGACGAT	8700
TTTCTCTTTG TCCTTTAGAA AGGTTTTAAA GACAGTCTGA AAAAGAGGAT GAACCTGCTT	8760
TAGATTGTCC TCAATGAGTC CGAAAAATTT CTCCGGTTCC TTATTCTGAA AGTGAAACAG	8820
CAAGAGTTGA TAGAGCTGAT AGTGATGTTT CAAGTCTTGT GAATAGCTCA AAAGCTTGTT	8880
TAAAACTCTT TTATTGGTTA AATGCATACG AAAAGTAGGG CGATAAAAAT GTTTATCGCT	8940
GAGTTTACGA CTATCTGTTT GTATGAGCTT CCAGTAGCGC TTGATAGCCT TGTATTCATG	9000
AGACTTTCGA TCCAATTGAT TCATGATTTG AACACGCACA CGACTCGG	9048

(2) INFORMATION FOR SEQ ID NO: 160:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10399 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 160:

GTACCTTTAT TGATGAATGG ACTGTTTAAA TCAGTAGCAC GCCAACCAGA TATGCTTTCT	60
GAGTTTCGTA GTTTGATGTT TTTAGGTGTT GCCTTTATTG AAGGAACTTT CTTGTAACT	120
CTTGTCTTCT CATTATTAT CAAATAAATA CATGGAACGA GAAGAAAAGG GAGGATTTTA	180
GATGGAAGAA AGTATTAATC CAATCATCTC TATTGGTCCT GTTATCTTCA ATCTGACTAT	240
GTTAGCCATG ACTTTGTGTA TTGTGGGAGT TATTTTGTG TTTATTTATT GGGCAAGCCG	300
CAATATGACC TTGAAACCCA AAGGAAAGCA AAATGTACTT GAGTATGTCT ATGACTTTGT	360
TATTGGATTT ACAGAACCTA ACATTGGTTC GCGCTACATG AAAGATTACT CACTCTTTT	420
CCTTTGTTTA TTCCPTTTCA TGGTGATTGC CAATAACCTT GGCTTAATGA CAAAGCTTCA	480
AACGATCGAT GGGACTAACT GGTGGAGTTC GCCAACCGCT AATTTACAGT ATGACTTAAC	540
CTTATCTTTT CTTGTCATTT TGTGACACA TATAGAAAGC GTTCGTCGTC GTGGATTTAA	600
AAAAAGTATA AAATCTTTTA TGAGTCCTGT TTTTGTGATA CCGATGAATA TCTTGGAAGA	660
ATTACAAAC TTCTTATCTT TGGCTTTGCG GATTTTGGG AATATCTTTG CAGGAGAGGT	720
CATGACGAGT TTGTTACTTC TTCTTTCCCA CCAAGCTATT TATTGGTATC CAGTAGCCTT	780
TGGAGCTAAT TTGGCTTGGA CTGCATTTTC TGTCTTTATT TCCTGCATCC AAGCTTATGT	840
TTTACTCTT TTGACATCTG TGTATTTAGG GAATAAGATT AATATTGAAG AGGAATAGAA	900

1038

AGGAGTAACT GATGCACGTA ACAGTAGGTG AATTAATTGG TAATTTTATT TTAATCACTG	960
GCTCTTTTAT TCTTTTGCTA GTCTTGATTA AAAAATTGTC ATGGTCTAAT ATTACAGGCA	1020
TTTTCGAAGA AAGAGCTGAA AAAATTGCTT CAGATATTGA CAGAGCTGAA GAAGCCCGTC	1080
AAAAAGCAGA AGTATTGGCT CAAAAACGCG AAGATGAATT GGCTGGTAGC CGTAAAGAAG	1140
CTAAGACAAT CATTGAAAAT GCAAAGGAAA CAGCTGAGCA AAGTAAGGCT AATATCTTAG	1200
CAGATGCTAA ACTAGAAGCA GGACACTTAA AAGAAAAAGC CAATCAAGAA ATTGCTCAAA	1260
ATAAAGTAGA AGCTTTACAG AGTGTTAAGG GTGAGGTCGC AGATTTGACC ATCAGCTTAG	1320
CTGGTAAAAT CATCTCACAA AACCTTGACA GTCATGCCCA TAAAGCACTC ATTGATCAGT	1380
ATATCGATCA GCTAGGAGAA GCTTAATGGA CAAGAAAACA GTAAAGGTAA TTGAAAATA	1440
CAGCATGCCT TTGTCCAAT TGGTACTTGA AAAAGGAGAA GAAGACCGTA TCTTTTCAGA	1500
CTTGACTCAA ATCAAGCAAG TTGTTGAAAA AACAGGTCCTG CCTTCTTTT TAAAACAAGT	1560
GGCAGTAGAC GAGTCGGATA AGGAAAAAAC AATTGCTTTT TTCCAAGATT CTGTGTCGCC	1620
TTTATTACAA AACTTTATCC AGGTTCTGGC CTACAATCAC AGAGCAAATC TTTTTTATGA	1680
TGTGCTTGTA GATTGCTTGA ACCGACTTGA AAAAGAAACA AATCGATTG AAGTGACGAT	1740
TACGCTCGCT CATCCTCTAA CTGATGAACA GAAGACTCGT TTGCTCCCTT TGATTGAGAA	1800
AAAAATGTCT CTGAAAGTAA GGAGTGTAAG AGAACAAATC GATGAAAGTC TCATTGGTGG	1860
TTTGTGCATT TTTGCCAATC ACAAGACAAT TGATGTGAGT ATTAACAAC AACTTAAAGT	1920
TGTTAAAGAA AATTTGAAAT AGAAAGTGGT GTTCTTTTGG CAATTAACGC ACAAGAAATC	1980
AGCGCTTTAA TTAAGCAACA AATTGAAAAT TTCAAACCCA ATTTTGATGT GACTGAAACA	2040
GGTGTGTGTA CCTATATCGG GGACGGTATC GCGCGTGCTC ACGGCCTTGA AAATGTCATG	2100
AGTGGAGAGT TGTGGAATTT TGAAAACGGC TCTTATGGTA TGGCTCAAAA CTTGGAGTCA	2160
ACAGACGTTG GTATTATCAT CCTAGGTGAC TTTACAGATA TCCGTGAAGG CGATACAATC	2220
CGCCGTACAG GGAAAATCAT GGAAGTCCCT GTAGGTGAAA GTCTGATTGG TCGTGTGTG	2280
GATCCGCTTG GTCGTCCAGT TGACGGTCTT GGAGAAATCC AACTGATAA AACTCGTCCA	2340
GTAGAAGCAC CAGCTCCTGG TGTATGCAA CGTAAGTCTG TTTCAGAACC ATTGCAAACT	2400
GGTTTGAAAG CTATTGACGC CCTTGTACCG ATTGGTCGTG GTCACGTGA GTTGATTATC	2460
GGTGACCGTC AGACAGGGAA AACAACCATT GCGATTGATA CAATCTTGAA CCAAAAAGAT	2520
CAAGATATGA TCTGTATCTA CGTCGCGATT GGACAAAAAG AATCAACAGT TCGTACGCAA	2580
GTAGAAACAC TTCGTCAGTA CGGTGCCTTG GACTACACAA TCGTTGTGAC AGCCTCTGCT	2640
TCACAACCAT CTCCATTGCT CTTCTAGCT CTTATGCTG GGGTTGCTAT GGCGGAAGAA	2700

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TTTATGTATC AAGGTAAGCA TGTTTTGATT GTATACGATG ATCTATCAAA ACAAGCGGTA	2760
GCTTATCGTG AACTGTGCGT CTGCTTCGT CGTCCTCCAG GTCGTGAAGC CTTCCCAGGG	2820
GATGTTTTCT ATCTCCACAG CCGTTTGCTT GAGCGCTCAG CTAAAGTTTC TGATGAACTT	2880
GGTGGTGGAT CAATTACAGC CCTACCATT ATCGAGACAC AAGCAGGAGA TATCTCAGCC	2940
TATATCGCAA CCAACGTGAT TTCTATCACT GATGGACAAA TCTTCCTTGG CGATGGCCTC	3000
TTCAATGCAG GTATTGCTCC AGCCATCGAT GCGGGTTCAT CTGTATCTCG TGTAGGTGGT	3060
TCTGCACAAA TCAAAGCCAT GAAGAAGGTT GCTGGTACAC TTCGTATCGA CCTTGCTTCA	3120
TACCGTGAGT TGGAAGCCTT TACTAAGTTT GGTTCGACT TGGACGCAGC AACACAGGCT	3180
AAGTTGAACC GTGGACGTCG TACCGTTGAG GTCTTGAAAC AACCTGTTCA CAAACCATTA	3240
CCTGTTGAGA AACAACTAAC CATTCTTTAT GCTTTGACAC ATGGTTTCTT GGATACTGTT	3300
CCAGTAGATG ATATTGTTTCG TTTCGAGGAA GAGTTCATG CCTTCTTTGA TGCTCAACAT	3360
CCAGAGATTT TGGAACCAT TCGTGATACA AAAGACTTGC CAGAAGAAGC AGTCTTGGAT	3420
GCTGCGATTA CAGAGTTTCT CAATCAATCT AGCTTCCAAT AAGAATAGAG GTGTCAAGTG	3480
GCAATATCTC TAAATGATAT TAAACAAAA ATCGCCTCAA CAAAAATAC GAGTCAAATC	3540
ACTAATGCCA TGCAAATGGT ATCGGCTGCT AAGCTAGGTC GTTCTGAAGA AGCTGCTCGC	3600
AACCTCCAAG TTTACGCTCA GAAAGTCCGT AAACCTTTGA CAGATATCCT TCATGGTAAT	3660
GGAGCTGGTG CTTCAACTAA TCCGATGTTG ATTAGCCGTT CTGTGAAGAA GACAGGCTAT	3720
ATCGTTATCA CTTCAAGCCG CGGTTTGTTT GGAGGTTATA ATTCCTCTAT TTTGAAAGCT	3780
GTTATGGAGT TGAAAGAAGA ATACCACCCA GACGGTAAAG GTTTTGAAAT GATCTGTATC	3840
GGTGGGATGG GAGCTGATTT CTTTAAGGCT CGCGGTATTC AACCACTTTA TGAATTACGT	3900
GGCTTGTCAG ACCAACCTAG CTTTGATCAA GTTCGTAAGA TTATTTCAAA AACTGTTGAA	3960
ATGTACCAAA ATGAACTCTT TGATGAGCTT TATGTTTGCT ACAACCACCA TGTCAATACG	4020
CTAACCACTC AAATGCGTGT GGAACAAATG CTTCCGATTG TTGACTTGGA TCCAAATGAA	4080
GCGGATGAAG AGTACAGCTT GACTTTTGAA TTGGAAACCA GCCGAGAAGA AATTCTGGAG	4140
CAGTTGTTGC CTCAGTTTGC AGAAAGTATG ATTTACGGTG CCATTATCGA TGCCAAGACA	4200
GCTGAGAATG CTGCGGGCAT GACAGCCATG CAAACAGCGA CAGATAATGC TAAGAAAGTC	4260
ATCAATGATT TGACAATTCA GTATAACCGT GCCAGACAGG CGGCGATTAC ACAAGAAATT	4320
ACAGAAATCG TAGCAGGTGC TAGTGCCTTA GAATAGGCTC TAGTCCAGCT CGTATGAAAA	4380
TGAACCTAGG ACCTAGTTGA GCTAGGAACC GACAGTATCT TATATAGAAT AGGAGAAGGA	4440

1040

GATGAGTTCA GGTAAAATTG CTCAGGTTAT CGGTCCCGTT GTAGACGTTT TGTTCGAGC	4500
AGGGGAAAAA CTTCTGAGA TTAACAATGC ACTTGTGTC TACAAAAATG ACGAAAGAAA	4560
AACAAAAATC GTCCTGAAG TAGCCTTGA GTTAGGAGAT GGTATGGTTC GTACTATCGC	4620
CATGGAATCA ACAGATGGGT TGA CTCTGTTGA AATGGAAGTA TTGGACACAG GTCGTCCAAT	4680
CTCTGTACCA GTAGGTAAAG AAACCTTTGGG ACGTGTCTTC AACGTTTTGG GAGATACCAT	4740
TGACTTGAA GCTCCTTTTA CAGAAGACGC AGAGCGTCAG CCAATTCATA AAAAGCTCC	4800
AACTTTTGAT GAGTTGTCTA CCTCTTCTGA AATCCTTGAA ACAGGGATCA AGGTATTGA	4860
CCTTCTTGCC CTTACCTTA AAGGTGGTAA AGTTGGACTT TTCGGTGGTG CCGGAGTTGG	4920
TAAACTGTCT TTAATCCAAG AATTGATTCA CAACATTGCC CAAGAGCACG GTGGTATTTC	4980
AGTATTTGCT GGTGTGGGG AACGTACTCG TGAGGGGAAT GACCTTTACT GGGAAATGAA	5040
AGAATCAGGC GTTATCGAGA AAACAGCCAT GGTCTTTGGT CAGATGAATG AGCCACCAGG	5100
AGCAGTATG CGTGTGCCC TTA CTGTTT GACAATCGCT GAATACTTCC GTGATGTGGA	5160
AGGCCAAGAC GTGCTTCTCT TTATCGATAA TATCTTCCGT TTCACTCAGG CTGGTTCAGA	5220
AGTATCTGCC CTTTGGGTC GTATGCCATC AGCCGTGGT TACCAACCAA CACTTGCTAC	5280
GGAAATGGGT CAATGCAAG AACGTATCAC ATCAACCAAG AAGGGTCTG TAACCTCTAT	5340
CCAGGCTATC TATGTGCCAG CGGATGACTA TACTGACCCA GCGCCAGCAA CAGCCTTCGC	5400
TCACTTGGAT TCAACAACAA ACTTGAACG TAAGTTGGTA CAATTGGGTA TCTACCCAGC	5460
CGTGTACCCA CTTGCTTCAA GCTCACGTGC CTTGGCACCT GAAATCGTTG GAGAAGAGCA	5520
CTATGCAGTT GCTGCTGAAG TAAACGTGT CCTTCAACGT TACCATGAAT TGCAAGATAT	5580
CATGCTATC CTTGGTATGG ATGAGCTTTC TGATGAAGAA AAGACCTTGG TTGCTCGCGC	5640
CCGTCGTATC CAGTTCTTCT TGTACAAAA CTTCAACGTT GCGGAACAAT TTA CTGTTCA	5700
GCCAGGTTCT TATGTCCAG TTGCTGAAAC TGTACGTGGC TTTAAGGAAA TCCTTGATGG	5760
TAAATACGAC CACTTGCCAG AAGATGCCTT CCGTGGTGTA GGTCTATCG AAGATGTGAT	5820
TGCAAAAGCT GAAAAAATGG GATTTTAAGA GGTGATCTAT GGCTCAGTTA ACTGTCCAGA	5880
TCGTGACACC AGATGGTCTC GTCTATGATC ACCATGCCAG CTATGTATCG GTTCGAACTC	5940
TGGATGGTGA GATGGGGATC TTGCCACGAC ATGAAAATAT GATTGCGGTT TTAGCAGTTG	6000
ATGAAGTAAA GGTAAACGT ATCGATGATA AAGATCACGT GAACTGGATT GCAGTAAACG	6060
GTGGCGTTAT TGAAATGCC AATGATATGA TCACAATCGT CGCTGACTCT GCAGAACGTG	6120
CTCGTGATAT CGATATCAGT CGTGCAGAAC GTGCCAACT TCGTGCAGAA CGTGCAATTG	6180
AAGAAGCACA AGACAAACAT TTGATTGACC AAGAACGTCG TGCTAAGATT GCTTTGCAAC	6240

1041

GTGCTATTAA CCGTATTAAT GTCGGAAATA GACTATAAGA AAAAATGAAC TTGAAAATAC	6300
CAAGTTCATT TTTTATGGTG TTTTAAGGAG CAAAACGGAT GCAGACTGCT TCGGGAACAT	6360
GGAAGTCGTT GGAGAGTTCT GCTAGACGAC CATTGTCACA ATTACGTTTA AAGACAGTTG	6420
CATTGTCAGA GTCTTGATGG ACAACAATGA GAAATTTTGT GTCGGGTGTC AAATCAAAT	6480
CACGTGGAGT CTGACCATGC GTTGAACGA TTTCTAATAA CTCTAAGCTA CCGTCCGCAA	6540
GGATGGTATA TACTGCGATA GAATCATGGC CACGGTTAGA AGCGTAGAGG TATTTACCGT	6600
CTTTAGAGAG ATGAATAGCA GCGGTTCCAT TAAAGCCTTC GTAAGCTTCC GGTAAAGTTG	6660
AAATGACCTG CATACGTTCA AATTCGCCAA CGCCATCGTA GATTAAACT TCGATAGTAC	6720
TATTGAGTTC ACAAATGAGA TAAGCGATTT TATAGTGGTT ATGGAAAATG ATATGGCGTG	6780
AGCCTGCTCC TGGCTTGCTG TGATAGGTAT AGAGCTTAGA TAATTTTCTT TCTTGATCGA	6840
GGTCATAGGT GATGACTTGG TCAGTTCCCA AGTCGCAGGT CACTAGATAG TGGTCAGGTG	6900
TTAAATCTGT ATAGTGAACA TGGGGGAAG CTTGATTTTC ATGTGGACCT TGGCCACTGT	6960
GTTGATCCAT ATCACTAAGT AGAAGACTAC CATCTTCTG GCGTTTATAA ACAAGGACTT	7020
GTCCCTTGTG ATAGTTAGCT GCGTAAACCA AATCACGCTT TTCATCGACA GCAACATAAC	7080
AGTGGGGAGC TCCTTCTTCA ACAACATGAT TTAACACAGT CCCGTCAGTT TGATAGGCTG	7140
CAATTCCCCC CTTATCGTCT TGGCTACCAA CAGTGTATAA ATGTTGGTGC TGGTCAAAGG	7200
CAAGGTAGGT TGGACTTGGC TCAGCTGCAA AAAGTTCTAG ATTTGAAAGC TGACCAGTTT	7260
CTGTATCAAA GTCTGCCTTG TAAATCCCTT GAGAAGTACG ACGTGTATAA GTTCCAAAAT	7320
AAACAGTTTC TTTCACTACT ATACCTCTGT GTAAAGATAA GACTATTATA TCACAAAAAC	7380
AAGTAAATTA AAGATATCCA ATTAGATGTA AGCACTTTAA AAAAGAGTTA TTTTGTTTCA	7440
AAAATGGTAT AATGAGAGAA CAATAGAAAG GAAGTATTTA TGGAGCAAAA AGAGAAACAT	7500
TTTAGCCTAT CTTGGTTTTT CAAGTGGTTT TTAGATAACA AGGCAATTAC GGTATTTTCA	7560
GTAACCTTAT TATTGGGACT GAATCTTTTT ATTTTAAGTA AGATTAGTTT TCTATTTTCA	7620
CCTGTTTGTG ACTTTTTAGC AGTTGTGATG TTGCCAGTCA TTTTGTCTGG TTTGTTATAT	7680
TATTTGTGTA ATCCTATTGT TGATTGGATG GAGAAGCATA AGGTTAATCG TGTATAGCT	7740
ATCACTATTG TCTTTGTTAT CATCGCTCTC TTTATCATTT GGGGCTTGGC AGTCGCCATT	7800
CCAAATCTGC AACGTCAGGT TTTGACCTTT GCAAGAAACG TTCCTGTTTA CTTAGAAGAT	7860
ATAGATAGGA TTGTTAATGG ATTGGTAGCC CAGCACCTGC CAGATGATTT CAGACCTCAA	7920
TTAGAGCAAG TTTTGACCAA TTTTCTAGC CAGGCTACAG TTTTGGCAAG TAAGGTTTCA	7980

1042

TCTCAGGCAG TCAACTGGGT GAGTGCCTTT ATTAGCGGGG CTTCTCAAGT GATTGTTGCC	8040
TTGATTATCG TTCCTTTCAT GCTCTTTTAT CTCTTGCGTG ATGGGAAAGG CTTGCGTAAC	8100
TATTTGACCC AATTCATTCC AAGAAAATTG AAGGAACCTG TTGGACAACT TTTATCAGAT	8160
GTGAATCAAC AGTTGTCCAA CTATGTTCTGA GGGCAAGTGA CAGTGGCTAT TATGTAGCA	8220
GTAATGTTTA TCATCTTCTT CAAGATTATT GGTCTACGCT ATGCGGTTAC GCTGGGGGTT	8280
ACTGCTGGTA TTTTAAATCT GGTCCCTTAT CTTGGTAGCT TTCTAGCCAT GCTTCCTGCT	8340
CTAGATTGG GTTTGATTGC TGGTCCAGTC ATGCTTTTGA AAGTAGTGAT TGTCTTTATC	8400
GTAGAACAAA CTATTGAAGG CCGTTTGTG TCTCCATTGA TTTTGGGAAG TCAATTAAAC	8460
ATCCACCCTA TTAATGTTCT CTTTGTGTTG TTAAGTTTCA GATCTATGTT TGGTATCTGG	8520
GGAGTTTAC TTGGTATTCC GGTTTATGCC TCTGCTAAGG TTGTCAATTC AGCCATTTTC	8580
GAATGGTATA AGGTAGTCAG TGGTCTATAT GAATTAGAGG GTGAGGAAGT CAAGAGTGAA	8640
CAATAGTCAA CAGATGTTAC AGGCTTTGGA GGAGCAAGAT TTAAGTAAGG CTGAGCATTG	8700
TTTCGCCAAA GCTTTAGAAA ATGATTCAAG TGATCTTCGT TATGAATTGG CAAGTTATCT	8760
TGAAGGGATT GGTTCCTATC CTCAGGCCAA GGAAATTTAC CTGAAAATTG TAGAGGATTT	8820
TCCAGAGGTT CATCTTAATC TAGCTGCAAT TGCTAGCGAG GATGGTCAAA TAGAAGAAGC	8880
CTTTACCTAT CTTGAGGAAA TCCAAGCTGA CAGTGACTGG TATGTCTCGT CTTTGGCTCT	8940
GAAGGCAGAC CTTTACCAGC TGGAAGGTTT GACAGATGTG GCACGTGAGA AATTATTGGA	9000
GGCCTTGACC TACTCAGAGG ATTCTCTCTT GATATTGGGT TTGGCAGAGT TGGATAGTGA	9060
GTTGGAAAAT TACCAAGCGG CTATTCAAGC CTATGCCAG TTAGATAATC GCTCGATTGA	9120
TGAGCAAACG GGCATTTCCA CCTATCAACG AATTGGCTTT GCCTATGCTC AGTTAGGGAA	9180
ATTTGAAACG GCTACTGAGT TTTTAGAAAA AGCCCTGGAG TTAGAATACG ATGACTTAAC	9240
AGCTTTTGAG TTGGCCAGTC TTTATTTTGA TCAAGAAGAA TATCAAAAAG CCACCTCTA	9300
CTTTAAGCAG CTTGATACCA TTTCTCCTGA CTTTGAAGGC TATGAGTATG GGTACAGTCA	9360
GGCTTTACAT AAGGAACATC AAGTTCAAGA AGCCCTGCGT ATCGCTAAGC AAGGATTAGA	9420
GA AAAATCCC TTTGAACTC GCCTCTTGCT AGCTGCTTCA CAATTTTCTT ATGAATTGCA	9480
TGATGCTAGT GGTGCAGAAA ATTATCTCCT TACTGCAAAA GAAGACGCTG AGGATACAGA	9540
AGAAATCTTG CTTGTTTAG CCACTATTTA TCTGGAGCAG GAGCGTTATG AGGATATTCT	9600
AGAATTGCAG AGTGAGGAGC CAGAAAATCT TTTGACCAAG TGGATGATTG CTCGTTCTTA	9660
TCAAGAAATG GACGATTTGG ATACTGCTTA TGAGTATTAT CAAGAGTTGA CAGGAGATTT	9720
GAAGGACAAT CCAGAATTTT TGAACACTA TATCTATCTC TTGCGTGAAT TGGGACATTT	9780

1043

TGAAGAAGCA AAAGTCCATG CTCACACTTA CTTAAAACTG GTTCCAGATG ATGTGCAAAT	9840
GCAAGAACTG TTTGAGAGAT TGTAAGAATG TTAAACCCAA ATCATTTCATA CCTCTCTCAA	9900
CTAGATGTAA CTTACAAAAC CCCTGACCTC ATGAGCCACT TTCTTCCTCC TCATGAGGTC	9960
AGTTTACTT TCTGCTGTT CAGTATCGTT TTTCCTCGCT AGATTTCCTC AAAAGGGCAG	10020
ACTCCTCCCT TGGTGCGTCA CACGATTTTT TCATCTCGAC TGTTCTTTAA TGCATCATT	10080
ACGACGCTTT TCTTCTAGGT GGTTCATAAG GAACAGGAAG ATTCAGGTTG ACTTTTCTAA	10140
TCCTAGAATA AAGTGCTGAA AACAAATTCG AATAGGCATA GAGACTAGAC AATTGAGGA	10200
GCTGCTTGGC TCCTGTTGCA ACACATTTTC CCACCACGTG AAGAAAAAGA TGGCGGAAGC	10260
GTTTGATTGT TAAAGTTTGG AAGTCACCTC CAGCTAGATG TTTGAGAAAA AGATAGAGAT	10320
TGTAGCGCAT ACAGCTCATC ATCATACGAA TTCGTTTTG ATTAAGGTTG AACTATCCGT	10380
TTTATCGCCA AAAAATCGG	10399

(2) INFORMATION FOR SEQ ID NO: 161:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9409 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 161:

GATAAGATTA AGTTAGAAAA GAAAGAACTA GGACATATCT ACCAGATTCA GGTTTTTAAT	60
AGCTATGGGC AGGAAGAAAT CTATCGTGTG ATTTTGATGG AGACCAATAT TAGTTCCGTT	120
TCAACCAATA TCAAGTATGC TGCTGTCTTG ATTAATACCA GTCAGTTGGA ACAGGCTAGT	180
CAAAAGCATG AGCAATTGAT TGTGGTCGTG ATGGCTAGTT TCTGGATTTT GTCTTTACTT	240
GCCAGTCTCT ATCTAGCTAG GGTCAGTGTT AGGCCCTGC TTGAGAGTAT GCAGAAGCAA	300
CAGTCTTTTG TGGAAAATGC CAGTCATGAG TTACGAACTC CACTCGCAGT TTTGCAAAAT	360
CGCTTAGAGA CCCTTTTTCG TAAGCCAGAA GCTACCATTA TGGATGTGAG CGAAAGCATT	420
GCATCGAGTT TGGAAGAAGT CCGAAATATG CGTTTTTAA CGACAAGCTT GCTGAACTTA	480
GCTCGGAGAG ATGATGGGAT TAAGCCGAG CTTGCAGAAG TTCCAAC TAG CTTTTTTAAT	540
ACAACCTTCA CAAACTACGA GATGATTGCT TCGGAAAATA ATCGTGTCTT CCGTTTTGAA	600
AATCGTATCC ATCGAACAAT TGTACAGAT CAGCTTCTTC TGAAACAACT GATGACCATT	660
CTTTTCGATA ATGCCGTCAA GTATACTGAG GAGGATGGTG AAATTGATTT TCTTATCTCG	720

1044

GCGACCGATC GCAATCTTTA TTTACTTGTT TCTGATAATG GAATCGGTAT TTCGACAGAA	780
GATAAAAAGA AAATTTTGA CCGTTTTTAT CGAGTAGACA AGGCTAGAAC CCGGCAAAAA	840
GGTGGTTTTG GTTTAGGATT ATCCCTAGCC AAGCAAATTG TAGATGCTCT AAAAGGAACT	900
GTTACTGTCA AAGATAATAA ACCCAAGGGA ACAATCTTTG AAGTGAAGAT TGCCATTCAG	960
ACACCATCTA AAAAGAAAAA ATAAAAATAT CGCTCCAATT GGGGCGATAT TTTGGATTTA	1020
TCTTCTACGT TTTGTTTTGA TAATAGACCG TTGAACTTTT AAAACAAGTA AGCTGAATCC	1080
GATTGCTGCG CCAAAGGCAA GAGCAGTTGA TAATTTTAAT GCTAAAAAGA TAAACTTAA	1140
GATAGCAATA CAGATACAAA AAACAGCGAT ATTAATAAAA AATAGGATTT CCTTGAGATT	1200
GGCATCAGAT TGCCTTCAG GTGTATAAGC TTGGTAATGA GGAAGCTGCT GGTTTAATTC	1260
TTCTTGATAG TCTACCTCAT AGGATTGTAA TTTTCTTACG GGCATGATTC TCTCCTAAC	1320
AGTACATACC TATTTTATCA TTTTTCGGC AGAGAATTAT TACAGAAAGG TTACAAAAAG	1380
AATAAAGTCC CTTTTCATTT TCAAGCATG GCTGATTTTG GAGAAATGTG GTATAATTTT	1440
TCTTATGGAA AAGATTGTCA TTACAGCAAC TGCTGAAAGT ATTGAACAAG TTGAACAAC	1500
ACTCGAAGCT GCGCTAGACC GTATCTATGT CCGTGAGAAA GATTTTGGTC TTCGTCTGCC	1560
AACGACCTTT AGTTATGACC AATTACGTGA AATCGCTAAG TTGGTTCATG ATGCTGGTAA	1620
GGAATTGATC GTTGCGGTCA ATGCTCTCAT GCACCAAGAT ATGATGGACC GTATCAAGCC	1680
TTTCTTAAAC TTCTTGGAAG AAATCAAGAC AGACTATATT ACGATTGGGG ATGCAGGCGT	1740
CTTTTACGTA GTTAACCGCG ATGGTTATTC ATTTAAGACC ATCTACGATG CTTCACCAT	1800
GGTAACTAGC AGTCGTCAGA TTAACCTCTG GGGACAAAAG GCTGGCGCAT CTGAGGCTGT	1860
TTTGGCGCGT GAAATTCCAT CAGCTGAACT TTTCAAAATG CCAGAGATTT TGGAAATTCC	1920
TGCTGAAGTT TTGGTTTACG GTGCTAGCGT CATCCATCAT TCTAAACGTC CACTCTTGCA	1980
AAACTACTAT AACTTTACAC ATATCGATGA TGAAAAGACG CATAAACGTG ACCTCTTCTT	2040
GGCTGAGCCA AGTGATCCAG AGAGCCACTA TTCCATTTTT GAAGATAATC ATGGGACCCA	2100
TATCTTTGCC AACAAATGACC TTGATTTGAT GATCAAATTA ACAGAATTGG TGGAGCATGG	2160
CTTTACTCGC TGGAACTAG AAGGGCTCTA CACTCCTGGT CAGAACTTTG TTGAGATTGC	2220
AAAACCTCTT ATCCAAGCGC GTAGCTTGAT TCAAGAGGGC AACTTTAGTC ATGCTCAAGC	2280
CTTCTTGCTG GATGAAGAAG TTCGTAACT TCACCCTAAA AACCGTTTCC TTGATACAGG	2340
ATTTTATGAC TACGATCCTG ACATGGTTAG ATAAAATACA TGATTCGTTG AGAGAAGGAA	2400
GATGCAACA TTTCTTCTCT CAATTTTTCG TATTTCTTCA CTATTTTACA AAAATCAGCA	2460
GGCTAGAATG CTCTATTCTA TGGGATTTTT AAGAAAAGTA GTGTTCTTGA GTTTGAAAA	2520

1045

TATCCTATGT TTGCAGGTGC CAAATGGCCC TTTTCTTGGT ATAATTTTTT ATAATGAAAA	2580
CGATTGGTAA TCGCTATGTT GTGGTGGATT TAGAGGCAAC TAGCACAGGT AGTAAGGCTA	2640
AAATTTATCCA AGTGGGAATT GTCGTGATTG AGGACGGAGA AATCGTCGAT CACTATACGA	2700
CGGATGTCAA TCCACATGAA CCCTTGGATG CTCATATCAA AGAACTGACA GGATTGACAG	2760
ACCAACGTCT GGCGCAAGCA CCTGATTTTT CGCAAGTTGC CAGAAAAATA TTTGACTTGG	2820
TGGAGGATGG GATTTTTGTA GCCCATAATG TTCAGTTTGA TGCTAATCTC TTGGCGGAAA	2880
ATTTATTTTT TGAAGGCTAT GAGCTAAGAA ACCCTCGTGT TGATACGGTC GAATTGCCCC	2940
AGGTCTTTTT CCCTGAACTG GAAAAATATA GCTTGGCCGAT TTTGTGTCGA GAATTAGGAA	3000
TTCTCTTAA ACACGCACAC ACAGCCCTTT CAGATGCCCA AGCTACAGCA GAATTACTTC	3060
TTTTTTTACG GAAAAAGATG ACCCAGCTTC CTAAGGTCT CTTGGAACGC TTGCTGGAAA	3120
TGGCTGACGC TCTCCTATAT GAGTCTTACC TGGTTATTGA GGAACTTAT CGCAACCAAT	3180
CTATCCTGAG TTCTCCAGAC TTGGTCCAAG TTCAAGGTCT ATATTTTAAG AAAACGGAAG	3240
CTTCTCTGGA GCCACGAAAA CTATCTCAAG ACTTTTCTAA AAATATTCTT CTGTTGAACC	3300
TTGAAGTGAG GGAGGAACAA GAAAGTTTTG CTAAGAGGT TGGCTTGCTA TTGAAAGATG	3360
AACCTGTCTC TCTGATTCAA GCGCCGACAG GGATTGGGAA AACCTATGGC TATCTCTTAC	3420
CCGCTTTATC TCAATCCAAA GAGCGACAAA TTGTTCTTAG TGTTCGACA AAGATTCTTC	3480
AAAAATCAAT CATGGAAGAA GAAGGTAAAC GCCTCAAGGA AGTGTTCAT ACAGATATTC	3540
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AAAAATGATGA AAATCGCTTA TTTAGACGCT TTAAGTGA AGTCTTGGTC TGGCTTACTG	3660
AGACAGAGAC AGGAGATTTG GATGAAATCG GGCAACTCTA CCGTTACCAA CATTTTCTAG	3720
CAGACCTTCG TCATGATGGG AATTATCAT CCCAGAGCTT ATTTGTGACG GAAGATTTTT	3780
GGAAACGTAG TCAAGAAAGG GCAGAGACTT GCAAGCTTTT AGTGACTAAT CATGCCTATC	3840
TCGTAACCAG ACTTGAAGAT AATCCTGAAT TTGTCAGTGA CCGTTTACTG ATTATTGATG	3900
AAGTCCAAAA GATTTTGTGA GCTCTAGAAA ATCTGCTTCA AGAGACCTAC GATATACAAT	3960
CTATTATCGA TTTAATTGAT AAGGCTTTAG TAGGAGAAGA AAACAGGGTT CAACAACGGA	4020
TACTAGAAAG TATTCGCTTT GAGTGTCTCT ACTTGATAGA ACAATTTTCT TCTGGCAAAT	4080
CTAGGAAAAA TATCTTAGAT TCTCTGGACA ATCTCCATCA GTATTTTTC GAATTGGAAG	4140
TAGAAGACTT TGATGAGCTG GTTCGCTATT TTACAGCTGA AGGTGATTAC TGGCTTGAAG	4200
TAACTGAAAC GAGTCAAAAG AAAATTCAGA TTTCTTCTAC AAAATCAGGC CGTACTCTTC	4260

1046

TGTCCTCTTT ACTTCCTGAG AGTTGCCAAG TCTTGGGAGT ATCGGCTACT CTTGAGATTA	4320
GTGAGAGGGT TTCTTTGGCA GACCTTTTAG GCTATCCTGA AGCTAAATTT GTCAAGATTG	4380
AATCTCGGG AAAACAGGAA CAAGAAGTGG TCATGGTCAA AGATTTCCCT CTGGTAACAG	4440
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TCCAGCAACC GATTTTGGTT CTCTTTACCG CTAAAGACAT GCTTCTAGCA GTATCGGATT	4560
TACTTACAGT TAGCCACTTG GCCAGTATA AAAATGGGA TGTTCATCAG CTAAAGAAAC	4620
GCTTTGAAAA AGGTGAACAA CAAATCTTGC TTGGTGCAGC AAGTTTCTGG GAGGGAGTTG	4680
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AAGAACCCTT GACGAAAAAG ATTAATCAAG AACTGAATCA AGAAGGAAA AATGCCTTTT	4800
ATGATTATCA ATTGCCAATG GCCATTATTG GTTTAAAACA GGCTTTGGGA AGAAGTATGA	4860
GACGTGAATA CCAACGTTC TTAACCTTA TTTTGGATAG GAGAATCGTC GGAACGAT	4920
ACGGCAAACA AATAGTAGCA TCTCTAGCAG AAGAAGCGAC TGTAAAACC ATCTCTCGAT	4980
CCGAAGTTGA CGAGGCTATT GATAGATTTT TTAATGAGCT TTGATAAATA GTATTGTATG	5040
AAAGTATAAG GTTAGTATAT ATGAAACGTT CTCTCGACTC AAGAGTCGAT TACAGTTTGC	5100
TCTTGCCAGT ATTTTCTTA CTGGTCATCG GTGTGGTGGC TATCTATATA GCCGTTAGTC	5160
ATGATTATCC CAATAATATT CTGCCATTT TAGGGCAGCA GGTGCGCTGG ATTGCCTTGG	5220
GGCTTGTGAT TGGTTTGTG GTCATGTCT TTAATACAGA ATTTCTTTGG AAGGTGACCC	5280
CCTTCTATA TATTTTAGGC TTGGGACTTA TGATCTTGCC GATTGTATTT TATAATCCAA	5340
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GGATGATTCT CTTTACCATT CCACTCCTAG TTCTTTTAGC ACTTCAAAGT GACTTGGGGA	5580
CGGCTTTGGT TTTTGTAGCC ATTTTCTCAG GAATCGTTTT ATTATCAGGG GTTCTTTGGA	5640
AAATTATTAT CCCAGTATTT GTGACTGCTG TAACAGGAGT TGCTGGTTTC TTAGCTATCT	5700
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ATCGGATTTT GGCTTGGCTC AATCCCTTTG AGTTTGCCCA AACAACGACT TACCAGCAGG	5820
CTCAAGGGCA GATTGCCATT GGGAGTGGTG GCTTATTGG TCAGGGATTT AATGCTTCGA	5880
ATCTGCTTAT CCCAGTTCGA GAGTCAGATA TGATTTTAC GGTATTGCA GAAGATTTTG	5940
GCTTTATTGG CTCTGTCCTG GTTATTGCCC TCTATCTCAT GTTGATTTAC CGTATGTTGA	6000
AGATTACTCT TAAATCAAAT AACCAGTTCT AACTTATAT TTCCACAGGT TTGATTATGA	6060

1047

TGTTGCTCTT CCACATCTTT GAGAATATCG GTGCTGTGAC TGGACTACTT CCTTTGACGG	6120
GGATTCCCTT GCCTTTCATT TCGCAAGGGG GATCAGCTAT TATCAGTAAT CTGATTGGTG	6180
TTGGTTTGCT TTTATCGATG AGTTACCAGA CTAATCTAGC TGAAGAAAAG AGCGGAAAAG	6240
TCCCATTCAA ACGGAAAAG GTTGTATTAA AACAAATTAA ATAAGAGAA AATCATGGTA	6300
AAAGTAGCAG TTATATTAGC TCAGGGCTTT GAAGAAATTG AAGCCTTGAC AGTTGTAGAT	6360
GTCTTGCGTC GAGCCAATAT CACATGTGAT ATGGTTGGTT TTGAAGAGCA AGTAACGGGT	6420
TCGCATGCAA TCCAAGTAAG AGCAGATCAT GTCTTTGATG GAGATTTATC AGACTATGAT	6480
ATGATTGTTT TCCTGGAGG TATGCCTGGT TCTGCACATT TACGTGATAA TCAGACCTTG	6540
ATTCAAGAAT TGCAAAGCTT CGAGCAAGAA GGAAGAAAC TAGCAGCCAT TTGTGCGGCA	6600
CCAATTGCCC TCAATCAAGC AGAGATATTG AAAAATAAGC GATACACTTG TTATGACGGC	6660
GTTCAGAGC AAATCCTTGA TGCTCACTAC GTCAAGGAAA CAGTAGTGGT AGATGGTCAG	6720
TTGACAACCA GTCGGGGTCC TTCAACAGCC CTTGCCTTTG CCTACGAGTT GGTGGAGCAA	6780
CTAGGAGGGG ACGCAGAGAG TTTACGAACA GGAATGCTCT ATCGAGATGT CTTTGGTAAA	6840
AATCAGTAAA ACGGGAGTTA TTCTCTCGTT TTTTATGTGG AAAACTCAGG GAAATCATCG	6900
CTTTTTCAT AAAAAATGC TATAATGAAG GGTATGAAAT ATCAGGATTA CATCTGGGAT	6960
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GCACTGTATG GTATCACACA AGACCATGAC AGTGTCTATC AAGCTTTAAA GGTTCCTACT	7080
CCTTTGCGA TTGAGACATT CGCTCCCAAT TTAGAGAATT TTTTAGAAAA GTACAAGGAA	7140
AATGAAGCCA GAGAGCTTGA ACACCCGATT TTATTGAAG GAGTTTCTGA CCTATTGGAA	7200
GACATTTCAA ATCAAGGTGG CCGTCATTTT TTGGTCTCTC ATCGAAATGA TCAGGTTTTG	7260
GAAATTTTAG AAAAAACCTC TATAGCAGCT TATTTTACAG AAGTGGTGAC TTCTAGCTCA	7320
GGCTTTAAGA GAAAGCCAAA TCCCGAATCC ATGCTTTATT TAAGAGAAAA GTATCAGATT	7380
AGCTCTGGTC TTGTCATTGG TGATCGGCCG ATTGATATCG AAGCAGGTCA AGCTGCAGGA	7440
CTTGATACCC ACTTGTTTAC CAGTATCGTG AATTTAAGAC AAGTATTAGA CATATAAGAA	7500
AAAGGAATAA GATGACAGAA GAAATCAAAA ATCTGCAGGC ACAGGATTAT GATGCCAGTC	7560
AAATTCAAGT TTTAGAGGGC TTAGAGGCTG TTCGTATGCG TCCAGGGATG TACATTGGAT	7620
CAACCTCAA AAGAGTCTT CACCATCTAG TCTGGGAAAT TGTTGATAAC TCAATTGACG	7680
AGGCCTTGGC AGGATTGGCC AGCCATATTC AAGTTTTTAT TGAGCCAGAT GATTCGATTA	7740
CTGTTGTGGA TGATGGGCGT GGTATCCAG TCGATATTCA GGAAAAACA GGCCGTCCTG	7800

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CTGTTGAGAC CGTCTTTACA GTCCTTCACG CTGGAGGAAA GTTCGGCGGT GGTGGATACA	7860
AGGTTTCAGG TGGTCTTCAC GGGGTGGGGT CGTCAGTAGT TAATGCCCTT TCCACTCAAT	7920
TAGACGTTC A TGTTCACAAA AATGGTAAGA TTCATTACCA AGAATACCGT CGTGGTCATG	7980
TTGTTCGAGA TCTTGAAATA GTTGAGATA CGGATAAAAC AGGAACAACT GTTCACTTCA	8040
CACCGGACCC AAAAATCTTC ACTGAAACAA CAATCTTTGA TTTTGATAAA TTAAATAAAC	8100
GGATTCAAGA GTTGGCCTTT CTAATTCGCG GTCTTCAAAT TTCAATTACA GATAAGCGCC	8160
AAGGTTTGA ACAAACCAAG CATTATCATT ATGAAGGTGG GATTGCTAGT TACGTTGAAT	8220
ATATCAACGA GAACAAGGAT GTAATCTTTG ATACACCAAT CTATACAGAC GGTGAGATGG	8280
ATGATATCAC AGTTGAGGTA GCCATGCAGT ACACAACCTG TTACCATGAA AATGTCATGA	8340
GTTCGCCAA TAATATTCAT ACCCATGAAG GTGGAACACA TGAACAAGGT TTCCGTACAG	8400
CCTTGACACG TGTTATCAAC GATTATGCTC GTAAAAATAA GTTACTGAAA GACAATGAAG	8460
ATAATTTAAG AGGGGAAGAT GTTCGCGAAG GCTTAACTGC AGTTATCTCA GTTAAACACC	8520
CAATCCACA GTTTGAAGGA CAAACCAAGA CCAAAATGGG AAATAGCGAA GTGGTCAAGA	8580
TTACCAATCG CCTCTTCAGT GAAGCTTTCT CCGATTTCTT CATGGAAAAT CCACAGATTG	8640
CCAAACGTAT CGTAGAAAA GGAATTTTGG CTGCCAAGGC TCGTGTGGCT GCCAAGCGTG	8700
CGCGTGAAGT CACACGTAAA AAATCTGGTT TGGAAATTTT CAACCTTCCA GGGAAACTAG	8760
CAGACTGTTC TTCTAATAAC CCTGCTGAAA CAGAACTCTT CATCGTCGAA GGAGACTCAG	8820
CTGGTGGATC AGCCAAATCT GGTGTAACC GTGAGTTTCA GGCTATCCTT CCAATTCGCG	8880
GTAAGATTTT GAACGTTGAA AAAGCAAGTA TGGATAAGAT TCTAGCCAAC GAAGAAATTC	8940
GTAGTCTTTT CACAGCCATG GGAACAGGAT TTGGCCGAGA ATTTGATGTT TCGAAAGCCC	9000
GTTACCAAAA ACTCGTTTGT ATGACCGATG CCGATGTCGA TGGAGCCAC ATTCTGACCC	9060
TTCTTTTAAC CTTGATTTAT CGTTATATGA AACCATCCTT AGAAGCTGGT TATGTTTATA	9120
TTGCCCAACC ACCAATCTAT GGTGTCAAGG TTGGAAGCGA GATTAAAGAA TATATCCAGC	9180
CGGGTGCAGA TCAAGAAATC AAATCCAAG AAGCTTTAGC CCGTTATAGT GAAGGTCGTA	9240
CCAAACCGAC TATTCAGCGT TATAAGGGGC TAGGTGAAAT GGACGATCAT CAGCTGTGGG	9300
AAACAACCAT GGATCCCGAA CATCGCTTGA TGGCTAGAGT TTCTGTAGAT GATGTGCAGA	9360
AGCAGATAAA ATCTTTGATA TGTTGATGGG GATCGAGTTG TCCTCGTCG	9409

(2) INFORMATION FOR SEQ ID NO: 162:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6415 base pairs
 - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 162:

CCTGGGAAAG TCTTGAAAAT TATGATAGAA TGGTGGAAGG AAAAATTCAG GAGAGTAGTA	60
GTGACTCAAA ATGTTGAAAG TCTTCTCGTA TCCATTGTAA TCAGTGCATA CAATGAAGAA	120
AAATATCTGC CTGGTCTAAT TGAAGACTTA AAAAATCAAA CCTATCCTAA AGAGGATATT	180
GAAATTCAT TTATAAATGC TATGTCCACA GATGGGACCA CAGCTATCAT TCAGCAATTT	240
ATAAAGGAAG ATACAGAGTT TAACTCAATT AGATTGTATA ACAATCCTAA GAAAAATCAA	300
GCTAGTGGTT TTAACCTGGG AGTTAAACAT TCTGTAGGGG ACCTTATTTT AAAAATTGAT	360
GCTCATFCAA AAGTTACTGA GACTTTTGTA ATGAACAATG TGGCTATTAT TCAACAAGGT	420
GAATTTGTCT GTGGGGGGCC TAGACCGACG ATTGTCTGAAG GAAAAGGAAA ATGGGCAGAG	480
ACCTTGCATC TTGTTGAGGA AAATATGTTT GGCAGTAGCA TTGCCAATTA TCGAAATAGT	540
TCTGAGGATA GATATGTTT TCTATTTTT CATGGAATGT ATAAACGAGA GGTTTTCCAG	600
AAGGTTGGTT TAGTAAATGA GCAACTTGGC CGAACTGAAG ATAATGATAT TCATTATAGA	660
ATTCGAGAAT ATGGTTATAA AATCCGCTAT AGCCCAAGTA TTCTATCTTA TCAGTATATT	720
CGACCAACAT TCAAGAAAAT GCTGCATCAA AAGTATFCAA ATGGTTTGTG GATTGGCTTG	780
ACAAGTCATG TTCAGTTTAA GTGTTTATCA TTATTTCACT ATGTTCCCTG TTTATTTGTT	840
TTGAGTCTTG TGTTTAGTCT AGCATTGTTA CCGATCACAT TCGTATTCAT AACTTTACTA	900
TTAGGTGCCT ATTTTCTACT TTTGTCATTA CTCACTTTGC TGACTTTATT AAAACATAAA	960
AATGGATTTC TAATTGTGAT GCCCTTTATT TTATTTTCCA TTCACTTTGC TTATGGCCTT	1020
GGGACGATTG TAGGTTTAAT TAGAGGATTT AAATGGAAGA AGGAGTACAA GAGAACAATA	1080
ATTTATTTGG ATAAAAAAG CCAAATAAAT CAAATATGC TATAATAACA ATATAGTAAA	1140
ACTCTTTTAA GGAGGAGTAG ATTTCTATGA ATAAAAAACT AACAGATTAT GTGATTGATC	1200
TGGTGGAAT TTAAATAAA CAACAAAAGC AGGTTTCTG GGAATATTT GATATTTTCA	1260
GTATGGTGGT TTCCATCATT GTATCTTATA TTTTATTTTA TGGGCTGATT AATCCAGCAC	1320
CTGTTGACTA CATTATCTAT ACGAGTTTGG CCTTCCTGTT CTATCAATTG ATGATTGGTT	1380
TTTGGGGGTT GAACGCGAGC ATTAGTCGTT ACAGCAAGAT TACGGATTTC ATGAAAATCT	1440
TTTTTGGTGT GACTGCTAGC AGTGTCTTGT CATATAGTAT CTGTTATGCC TTCTTGCCAC	1500
TCTTCTCCAT CCGTTTCATC ATTCTCTTTA TCTTGTGAG TACCTTCTTG ATTTTATTGC	1560

1050

CACGGATTAC TTGGCAGTTA ATCTACTCCA GACGCAAAAA AGGTAGTGGT GATGGAGAAC	1620
ACCGTCGGAC CTTCTTGATT GGTGCCGGTG ATGGTGGGGC TCTTTTATG GATAGTTACC	1680
AACATCCAAC CAGTGAATTA GAACGGTCG GTATTTTGA TAAGGATTCT AAGAAAAAGG	1740
GTCAAAAACT TGGTGGTATT CCTGTTTGG GCTCTTATGA CAATCTGCCT GAATTAGCCA	1800
AACGCCATCA AATCGAGCGT GTCATCGTTG CGATTCCGTC GCTGGATCCG TCAGAATATG	1860
AGCGTATCTT GCAGATGTGT AATAAGCTGG GTGTCAAATG TTACAAGATG CCTAAGGTTG	1920
AAACTGTGTG TCAGGGCCTT CACCAAGCAG GTACTGGCTT CCAAAAAATT GATATTACGG	1980
ACCTTTTGGG TCGTCAGGAA ATCCGTCTTG ACGAATCGCG TCTGGGTGCA GAACTGACAG	2040
GTAAGACCAT CTTAGTCACA GGAGCTGGAG GTTCAATCGG TTCTGAAATC TGTCGTCAAG	2100
TTAGTCGCTT CAATCCTGAA CGCATTGTCT TGCTCGGTCA TGGGGAAAC TCAATCTACC	2160
TTGTTTATCA TGAATTGATT CGTAAGTTC AAGGGATTGA TTATGTACCT GTGATTGCGG	2220
ACATTCAAGA CTATGATCGT TTGTTGCAAG TCTTTGAGCA GTACAAACCT GCTATTGTTT	2280
ATCATGCCGC AGCCCAAG CATGTTCTTA TGATGGAGCG CAATCCAAAA GAAGCCTCA	2340
AAAACAATAT CCGTGGAAC TACAATGTTG CTAAGGCTGT TGATGAAGCT AAAGTGCTA	2400
AGATGGTTAT GATTTCGACA GATAAGGCAG TCAATCCACC AAATGTTATG GGAGCAACCA	2460
AGCGCGTGGC GGAGTTGATT GTCAGTGGCT TTAACCAACG TAGCCAATCA ACCTACTGTG	2520
CAGTTCGTTT TGGGAATGTT CTTGGTAGCC GTGGTAGTGT CATTCAGTC TTTGAACGTC	2580
AGATTGCTGA AGGTGGGCCT GTAACGGTGA CAGACTTCCG TATGACCCGT TACTTTATGA	2640
CCATTCCAGA AGCTAGCCGT CTGGTTATCC ATGCTGGTGC TTATGCCAAA GATGGGGAAG	2700
TCTTTATCCT TGATATGGGC AAACCAGTCA AGATTTATGA CTTGGCCAAG AAGATGGTGC	2760
TTCTAAGTGG CCACACTGAA AGTGAAATTC CAATCGTTGA AGTTGGAATC CGCCAGGTG	2820
AAAACTCTA CGAAGAATC TTGGTATCAA CCGAACTCGT TGATAATCAA GTTATGGATA	2880
AGATTTTCGT TGGTAAGGTT AATGTCATGC CTTAGAATC CATCAATCAA AAGATTGGAG	2940
AGTTCCGCAC TCTCAGTGA GATGAGTTGA AGCAAGCTAT TATCGCCTT GCTAATCAAA	3000
CAACCCACAT TGAATAAAAA AGAAAAACGC ATAGTATCAA GTTACACAAC CTTGGTAATA	3060
TGCGTTTAT TATGTAGAGA CTTATACTCT TCGAAAACT CTTCAAACCA CGTCAACGTC	3120
GCCTTGCCGT ATATGGTTAC TGAATCGTC AGTTCTATCC ACAACCTCAA AACAGTGTG	3180
TGAGyTGACT TCGTCAGTTC TATCCACAAC CTCAAAACAG TGTTTTGAGc TGACTTCGTC	3240
AGTTCTATCC ACAACCTCAA AACAGTGTG TGAGCTGAcT TCGTCAGTTC CATCCACAAC	3300
CTTAAACAG TGTTTTGAGy TGACnTTCGT CAGTTCATC TACAACCTTA AACAGTGTG	3360

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TTGAGCTGCC CGCAGCTAGT TTCCTAGTTT GCTCTTTGAT TTTCATTGAG TATTACTTCA	3420
TTTTCTTCTG AAATGGAATT GTTACCCAGT CTATGCTATT GAAAATACGC CAAAACCTCT	3480
AAGGGTTTGT GAGCGATATA ATCAGGTTGA TAGTTTAGTA GATCTGCTTG CTCTCCAAAT	3540
CCCCAAGTGA TGGCCAATTT CTGAATACCT GTTCTCTGAG CTCCCAGCAT ATCAAACCTG	3600
GTATCTCCGA TGATGATGGC TTGTTCTGGT GCTAGTTGAT GTGTCTGCAA GGCTTGGTGA	3660
ATGACATCTG CCTTATGGGG TGCTTCAGGG CTAGAACCAT AAATGCCATC AAAGAAATGA	3720
TGGATTTCCA AGTTTTTTCG CATGTCTTGA GCAGTAGATG TATCCTTTGT CGTGGTGATG	3780
TAGAGTGGAT AACTGCTCGA TAACTCCTCA AGCAAGTCTA TAATCTGAGG AAAGAGTTGA	3840
GCTTCATAGA TGCTTTTTCG CTTATAGTAA GAACGATATA TCTGCACGGC TTCAGAAATT	3900
TGGTCTTTGG ACAGGCAGGT CGCAAACTA CTTTCGAGAG GTGGTCCCAT AAAACCACGA	3960
ATAGTTTGG CATCAGGGCT AGGCACCCCC AGCTCTTTAA AGGTATAGGT AAAGGCATTG	4020
TGAATCCCGA TAGAACTATC AACGAGGGTT CCATCCAAAT CGAAAAAAT CGCTGTGATA	4080
GAGGTGATGG TTTCTCCTAT TTGATAAGCT TATTCTCCGA AAATTTCTTT TTGGAGGCGA	4140
CGACCAGTAG GGTGGTAGC GAGTCCACCT TCAGCTGTTT CACGAAAGGC AGTTGGCATG	4200
CTTGCTCCTA CTTGGTACAT GGCATCGATC ACTTCATCCA CAGGGATTTT AGATTGATA	4260
CCTGCCAAGG CCATGTCTGC TGCATGAAA GCAAAGCTAG CTCCCATGGC ATTACGTTTG	4320
ACACAGGGAA CTTGACCAA ACCTGCAACA GGTCACAGA TGAGGCCTAG CATATTTTTA	4380
ATGACAAAG CAATAGCTTG ACTGGCCTGA TAAGGTGTTT CACCTGCAGC CAGAGTCAAG	4440
GCGGCAGCAC TCATAGCAGA GGCTGAACCA ACTTCAGCTT GACACCCACC CTCAGCACCT	4500
GAGATGGAGG CATTGTTTGC GATGACTAGT CCAAAGGCAC CAGCAGCAA GAGGAAATCC	4560
AATTGTTGCT CGTGGCTGAG GTCTAATTTT TCAATAGCAG CAGTGAGAAC GGATGGCAGA	4620
CAGCCAGCAC TTCCAGCGGT TGGAGTGGCA CAGACCAAGC CCATTTTGGC ATTGTGTTCA	4680
TTGACTGCGA TGGCATTTCG GGCAGCCGAG AGAATCGTAT AATCTGACAG AGTTTTTCCG	4740
TTTTCGATGT AGTGATCCAA TTGGCAGCA TCTCCACCTG TCAGGCCACT ACGAGATTTA	4800
TTTTCATTGA GGCCAAGTTG GACAGAGGCT TTCATAACTT CCAGATTGCG TTCCATGAGA	4860
AGGAAGACTT CTTACGTTT GCGACCGGT AATTCAAACCT CTGTTGTAAT CATGAGTTCT	4920
GCGACATTTT CTTGAAAGTC CAGATCTGCT TGCTCGACCA ATTCTTTGAT AGAATAAAAC	4980
ATGCTTCCTC CTATTTAAAG AAATTGACAT TGTGGAGATG AGGGATTTTT CGAATTTCTT	5040
CGATAGCCTC ATCACAGTTG CGACTGTCAA CTTGATAAT CATAATGGCT TTTTCACCAG	5100

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CTTTTTCACG AGTGACATTC ATCTGGGCGA TATTGATACC ATAGCGGGAA AGCGCCTCTG	5160
TAACAAGGGC AATCATACCT GGAATATCTT GATGAACGAT GATGATAGTC GGTGTATTCA	5220
TATTGAGAGA GACGGCAAAA CCATTGAGTT CGGTTACCTG AATATTTCTT CCACCGATAG	5280
AAATACCACT CACGCTGATG GTCTTGTGGG CATTTTAAAC AGTAATTTTA GTGGTGTAG	5340
GGTGAGGGGC ATTGCTGTCT TTCTGAATGG TCCAGACAAT CTTGATACCA CGCTTGTGGG	5400
CAATTTCCAG ACTATTTGGA ATTTTCAGGAT CATCTGTATC CATTCCTAAA ATACCTGCAA	5460
CAAGGGCTAG GTCTGTTCG TGACCACGAT AGGTCTTGGC AAATGAGTTA AAAAGTTGGA	5520
ATTCAACTTC TGTGCGAGTA TCATCAAAAA TGGGAAGAGC AATCTTCCCA ATACGAACAG	5580
CACCAGCGGT ATGGCTACTA GATGGGCCAA TCATAACTGG TCCGATGATA TCAAAGACAG	5640
ATTGAAAACG AAGTGATTTC ATCAGTTTCC CCTTATAAAA ATTCTTATCT CTATTATATC	5700
AAAGAATGAG GGGCTTGGCT TTAATTGTGG ATGAAAACCT TTCTAATACC TCAAATAGCA	5760
TAAAAATAGT ATCTTTTATG AAAAAAACA CCTTATTTAG GGAAATAAAA AATAATTTTG	5820
TAATATTTCT ACATAAAAGT GTCAAGAAAC GGTAATATTT AAAGGGTATG ATAGAACTAT	5880
AGAAAGAAGG AGAATTTTCG AATATGAAAT CAATAACTAA AAAGATTAAA GCAACTCTTG	5940
CAGGAGTAGC TGCCTTGTTC GCAGTATTTG CTCCATCATT TGTATCTGCT CAAGAATCAT	6000
CAACTTACAC TGTTAAAGAA GGTGATACAC TTTCAGAAAT CGCTGAAACT CACAACACAA	6060
CAGTTGAAAA ATTGGCAGAA AACAACCACA TTGATAACAT TCATTGATT TATGTTGATC	6120
AAGAGTTGGT TATCGATGGC CCTGTAGCGC CTGTTGCAAC ACCAGCGCCA GCTACTTATG	6180
CGGCACCAGC CGCTCAAGAT GAAACTGTTT CAGCTCCAGT AGCAGAACT CCAGTAGTAA	6240
GTGAAACAGT TGTTTCAACT GTAAGCGGAT CTGAAGCAGA AGCCAAAGAA TGGATCGCTC	6300
AAAAAGAATC AGGTGGTAGT ATACAGCTAC AAATGGACGT TATATCGGAC GTTACCAATT	6360
AACAGATTCA TACCTGAACG GTGACTACTC AGCTGAAAAC CAAGAACGGG TACCG	6415

(2) INFORMATION FOR SEQ ID NO: 163:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8494 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 163:

TACCCCTTTC GAATTTTGGC AAAAATTCGG TAAGGCTTTG ATGGTAGTTA TCGCGGTTAT	60
CCCGGCTGCT GTTTGATGA TTTCAATCGG TAAGTCTATC GTGATGATTA ACCCAACCTT	120

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TGCACCACTT GTCATCACAG GTGGAATTCT TGAGCAAATC GGTGGGGGG TTATCGGTAA	180
CCTTCACATT TTGTTGCCC TAGCCATTGG AGGAAGCTGG GCTAAAGAAC GTGCTGGTGG	240
TGCTTTCGCC GCTGGTCTTG CCTTCATCTT GATTAACCGT ATCACTGGTA CAATCTTTGG	300
TGTATCAGGC GATATGTTGA AAAATCCAGA TGCTATGGTA ACTACTTTCT TTGGTGGTTC	360
AATCAAAGTT GCTGATTACT TTATCAGTGT TCTTGAAGCT CCAGCCTTGA ACATGGGGGT	420
ATTGCTAGGG ATTATCTCAG GTTTGTAGG GGCAACTGCT TACAACAAAT ACTACAACCT	480
CCGTAAACTT CCGTATGCAC TTTCATTCTT CAACGGGAAA CGTTTCGTAC CATTTGTAGT	540
TATTCCTCGT TCAGCAATCG CTGCAATTCT ACTTGCTGCT TTCTGGCCAG TAGTTCAAAC	600
AGGTATCAAT AACTTCGGTA TCTGGATTGC CAACTCACAA GAAACTGCTC CAATCTTGC	660
ACCATTCTTG TATGGTACTT TGAACGTTT GCTCTGCCA TTGGTCTTC ACCACATGTT	720
GACTATCCCA ATGAATACA CAGCTCTGG TGGTACTTAT GACATTTTAA CTGGTGCAGC	780
TAAAGTACT CAAGTATTCG GTCAAGACCC ACTATGGCTT GCATGGGTAA CAGACCTTGT	840
AAACCTTAAA GGTACTGATG CTAGTCAATA TCAACACTTG TTAGATACAG TACATCCAGC	900
TCGTTTCAAA GTTGACAAA TGATCGGTTT ATTCGGTATC TTGATGGGTG TGATTGTTGC	960
TATCTACCGT AATGTTGATG CTGACAAGAA ACATAAATAC AAAGGTATGA TGATTGCAAC	1020
AGCTCTTGCA ACATTCTTGA CAGGGGTTAC TGAACCAATC GAATACATGT TCATGTTCTAT	1080
CGCAACACCT ATGTATCTTG TTACTCACT TGTTCAGGT GCTGCCTTCG CTATGGCTGA	1140
CGTCGTAAAC CTACGTATGC ACTCATTCGG TTCAATCGAG TTCTTGACTC GTACACCTAT	1200
TGCAATCAGT GCTGGTATTG GTATGGATAT CGTTAACTTC GTTTGGGTAA CTGTTCTCTT	1260
TGCTGTAATC ATGTACTTTA TCGCAAACCT CATGATTCAA AAATTCAACT ACGCAACTCC	1320
AGGGCGCAAC GGAAACTACG AAAGTCTGA AGGTTGAGAA GAAACCAGCA GCGAAGTGAA	1380
AGTTGCAGCA GGCTCTCAAG CTGTAAACAT TATCAACCTT CTTGGTGGAC GTGTAAACAT	1440
CGTTGATGTT GATGCATGTA TGAATCGTCT TCGTGTAATC GTTAAAGATG CAGATAAAGT	1500
AGGAAATGCA GAGCAATGGA AAGCAGAAGG AGCTATGGGT CTTGTCATGA AAGGACAAGG	1560
GGTTCAAGCT ATCTACGGTC CAAAAGCTGA CATTTTGAAA TCTGATATCC AAGATATCCT	1620
TGATTCAGGT GAAATCATTC CTGAAACTCT TCCAAGCCAA ATGACTGAAG CACAACAAAA	1680
CACTGTTCAc TTCAAAGATC TTAAGGAGGA AGTTTACTCA GTAGCAGACG GTCAAAGTGT	1740
TGCTTTGGAA CAAGTAAAGG ATCCAGTATT TGCTCAAAAA ATGATGGGTG ATGGATTGTC	1800
AGTAGAACCT GCAAATGGAA ACATTGTATC TCCAGTTTCA GGTACTGTGT CAAGCATCTT	1860

1054

CCCAACAAAA CATGCTTTTG GTATTGTGAC GGAAGCAGGT CTTGAAGTAT TGGTTCACAT	1920
TGGTTTGGAC ACAGTAAGTC TTGAAGGTAA ACCATTTACA GTTCATGTTG CTGAAGGACA	1980
AAAAGTTGCA GCAGGAGATC TCCTTGTCAC AGCTGACTTG GATGCTATCC GTGCAGCAGG	2040
ACGTGAAACT TCAACAGTAG TTGTCTTCAC AAATGGTGAT GCAATTAAAT CAGTTAAGTT	2100
AGAAAAACA GGTTCCTTG CAGCTAAAC AGCAGTTGCT AAAGTAGAAT TGTAATATAC	2160
TTGAGGTTGG AAGCTGTATT CCAACCTCTT ATTTTGGGAG AAAAGAATGA AATTTTAAAC	2220
ACTCAATACT CACAGTTGGA TGGAGAAAGA AGCAGAGGAA AAATTCCAGA TTTTGCTTGA	2280
AGATATCTCT GAAAAGGACT ATGATTGAT TTGTTTCAA GAAATCAATC AGGAGATGAC	2340
CTCGTCAGAG GTGGAGGTTA ATGACCTTTA TCAAGCTTTG CCAGCAGCTG AGCCTATTCA	2400
CCAAGACCAT TATGTTAGAC TCTTGGTTGA AAAGTTGTCT GAGCAAGGGA AAAATTACTA	2460
CTGGACCTGG GCCTATAACC ATATCGGCTA TAACCGCTAC CACGAAGGTG TGGCTATCTT	2520
GTCTAAACA CCTATTGAAG CCAGAGAAAT TTTGGTTTCA GATGTGGATG ATCCAACAGA	2580
CTATCATACT CGCCGTGTTG CCCTAGCTGA AACTGTAGTC GATGGCAAGG AGCTAGCAGT	2640
TGCCAGTGTT CATCTCTCTT GGTGGGATAA AGGTTTCCAA GAAGAATGGG CACGATTTGA	2700
GGCTGTCTTG AAAAAATTGA ACAAGCCACT TTTACTAGCT GGAGATTTCA ACAATCCGGC	2760
TGGACAGGAA GGTTACCAAG CTATTTTAGC TAGTCCATTA GGCTTACAAG ACGCATTTGA	2820
AGTTGCTCAA GAGAAAAGTG GTAGCTATAC TGTTCGCCT GAAATTGATG GCTGGAAAGG	2880
GAACACTGAA CCCCTTCGAA TCGATTATGT CTTTACTACC AAAGAGTTAG CGGTGGAAAA	2940
TTTACATGTC GTATTGATG GTAACAAGAG TCCACAAGTG AGTGATCACT ATGGCTTGAA	3000
TGCTATATTA AACTGGAAAT AATAACTGAA AAGAGGTTGG AACTATAAAA TTCCAGCCTT	3060
TTCTTACTAG AGAAGCTACT GGAAATAGCC TAAATAAGTG AGACTACTGT AATGGAATAA	3120
AATATGGTAT AATTGATAAG GTAGATAGAA TCGAGGATGT TATGTCATTT ACGAAATTTT	3180
AATTTAAAAA CTATATTAGA GAAGCCTTGA AGGAGTTAAA ATTTACAACT CCAACAGAGG	3240
TGCAAGACAA GTTGATTCTT ATTGTTTGG CAGGTCGTGA CCTAGTAGGA GAATCAAAAA	3300
CAGGTTACAG TAAGACTCAT ACTTCTTGT TACCGATTTT CCAGCAATTA GATGAAGCTA	3360
GCGATAGTGT ACAAGCAGTG ATTACTGCAC CGAGTCGTGA GTTGGCTACT CAAATTTACC	3420
AAGTAGCGCG TCAGATTTCA GCTCACTCAG ATGTCGAAGT TCGTGTGGTT AATTATGTGG	3480
GTGGTACGGA TAAGGCTCGC CAGATTGAGA AATGGCAAG CAATCAGCCT CATATTGTTA	3540
TTGGAACACC AGGCCGTATC TACGACTTGG TTAAATCTGG TGATTTAGCT ATTCATAAAG	3600
CCAAGACATT TGTGTTGAT GAAGCAGATA TGACCTTGA TATGGGATTC TTGGAACTG	3660

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TTGATAAGAT TGCTGGCAGT CTTCCAAAAG ACTTGCAATT CATGGTCTTC TCAGCGACTA	3720
TCCCACAAAA ACTGCAACCA TTCTTGAAAA AATACTTATC AAATCCTGTT ATGGAGAAAA	3780
TTAAGACCAA AACGGTTATT TCTGACACCA TTGATAATTG GTTGATTTCG ACCAAGGGAC	3840
ATGATAAGAA TGCTCAAATT TACCAGTTGA CTCAGTTGAT GCAGCCGTAT TTGGCAATGA	3900
TTTTTGTTAA CACTAAAACG CGTGCTGATG AATTGCATTC ATATCTGACT GCTCAAGGCT	3960
TGAAGGTTGC AAAAATCCAT GGCGATATTG CCCCTCGTGA ACGCAAGCGA ATCATGAATC	4020
AGGTGCAAAA TCTGGATTTT GAGTATATTG TCGCAACAGA TTTGGCAGCG CGTGGGATTG	4080
ACATTGAAGG TGTGAGCCAT GTCATCAATG ATGCCATTCC GCAAGACTTA TCTTTTTTGT	4140
TTTCATCGTG TGGTCGTA CTGACGAAATG GCCTACCAGG TACAGCTATT ACCCTTTATC	4200
AGCCCAAGTA TGACTCGGAT ATCCGTGAGT TGGAGAAATT GGGAATCAAG TTTAGTCCTA	4260
AGATGGTCAA AGACGGGGAA TTTCAAGATA CCTATGACCG TGATCGTCGT GCCAACCGTG	4320
AGAAAAACA AGATAAACTT GATATCGAAA TGATTGGTTT GGTAAAAAG AAAAAGAAAA	4380
AAGTCAAACC GGGTTATAAG AAGAAAATTC AATGGGCGGT TGATGAAAAG CGCCGTAAAA	4440
CCAAGCGTGC TGAAAATCGC GCTCGCGGTC GTGCAGAGCG TAAAGCTAAA CGCCAAACAT	4500
TTTAATAGAA ATTGTTGGAG TATTGAGCTC CAACTTTTTT ATTTATGAGA ACGAACTATC	4560
TAAACCGAAA CACTACATTA AAGACTGCAA ATTGCGATTA AAAATGGTAT AATGATAAAG	4620
TTATATAGTC CCGATAAGAT GGTAGGTATT TATTACGAAG AGTTTTCCTA TCAGTACTTT	4680
GTAACCTCTAT AACAAATTTT TTTAAGGGGG GACATTTTTA TGTCAGAGCG TAAATTATTC	4740
ACGTCTGAAT CTGTATCTGA GGGGCATCCG GATAAGATTG CAGACCAAAT TTCAGATCGG	4800
ATTTTGGATG CTATTTTAGC AAAGGATCCA GAGGCGCAGG TTGCTGCTGA AACAGCTGTA	4860
TATACTGGTT CTGTCCACGT TTTTGGTGAA ATTTCTACAA ATGCCTATGT GGATATTAAAC	4920
CGTGTGGTTC GTGATACCAT TGCAGAGATT GGTATACCA ATACAGAATA TGGATTTTCT	4980
GCTGAGACGG TGGGAGTACA CCCATCTTTG GTGGAACAAT CTCCTGACAT CGCTCAAGGT	5040
GTTAACGAAG CCTTGGAGGT TCGTGGAAT GCTGATCAAG ATCCACTGGA CTTGATTGGA	5100
GCAGGTGACC AAGGGCTCAT GTTTGGATTT GCAGTAGATG AAACAGAAGA GCTTATGCCA	5160
TTGCCAATTG CACTCAGTCA TAAATTGGTT CGTCGTCTGG CAGAACTTCG TAAGTCTGGA	5220
GAAATTAGCT ATCTCCGTCC AGATGCAAAA TCACAAGTTA CAGTTGAGTA CGATGAAAAAT	5280
GACCGTCCGG TACGTGTAGA TACAGTCGTT ATTTCTACTC AGCATGATCC AGAGGCCACT	5340
AATGAACAAA TCCATCAAGA TGTGATTGAC AAGGTCATCA AAGAAGTTAT TCCATCTTCT	5400

1056

TATCTTGATG ATAAGACAAA ATTCTTTATC AATCCGACAG GTCGTTTTGT AATCGGTGGT	5460
CCTCAAGGGG ACTCAGGTTT GACTGGTCGT AAGATTATTG TAGATACTTA TGGTGGCTAC	5520
TCTCGTCATG GTGGTGGTGC CTTCTCTGGT AAAGATGCGA CTAAGGTGGA TCGTTCAGCC	5580
TCTTATGCGG CTCGCTATAT TGCCAAGAAT ATCGTTGCAG CAGACCTTGC TAAGAAGGCA	5640
GAAGTGCAGT TGGCCTATGC TATCGGTGTT GCGCAACCTG TTTCTGTTCC TATCGATACT	5700
TTCCGTACAG GAACAGTAGC TGAAAGTCAA CTTGAAAAAG CGGCTCGTCA AATCTTTGAC	5760
CTTCGCCCTG CAGGGAATTAT CCAAATGCTG GACCTCAAGC GTCCAATTTA CCGTCAAACA	5820
TCGGCTTACG GTCACATGGG ACGTACAGAT ATTGATCTTC CATGGGAACG TTTGGATAAG	5880
GTAGATGCTT TGAAAGAAGC AGTAAAATAA GATTTTAAGA GGGGAACGTC CTCTCTTTTT	5940
TATAGTTTTT AACTATACTG GGATACTGTT CTGAAATCC ATTTTGCGAA AGTAGAGATT	6000
TACATGTATA GTAGATTGAA ACTAGAATAG TACACCTCAA CTTCTAAAAC ATTGTTAGCA	6060
ATCAATTGTA CTGTCCTGAT CGATTTCTCC TGTCTTGTTC TCATTTTACT ATATTCTTT	6120
AAAAATGATA AAGGTTAAGA TTTCTCCTCG TAATAGATAA TCTTGGGGAT ATTTCAATCC	6180
AAAGTTTTAT TCGTTATCAC TTGACTATTG CAAGGTTTTC TAGAGCAACA GAGTCATGGA	6240
ATGGACTCAT GGTGAGATT TCTCCTTGTT GCTTGGACTT CATTCAAAAG TCTGTTACCC	6300
AAGCCTTGTT CAAACTTCTA ATACACTAGC TGTTCCTATA GCATGACTTC TGTACTAGAC	6360
TTTCTTTTCC GAATAAATAG ATAGAACCAC AGAATCTAGT AAACCTAGAA TTAAAATTAT	6420
GGTATAATAT TAGCAATAAA AGAAATCTGG AGGATTAGAA TCATGGTATC AACGAAAACA	6480
CAAATGCTG GTTTTGAGTT TGACAATTGC TTGATGAATG CAGCAGGTGT GGCTTGATG	6540
ACGATAGAGG AGTTAGAAGA GGTCAAAAAC TCAGCGGCAG GAACCTTTGT TACTAAGACA	6600
GGGACCTTGG ACTTCCGTCA GGGGAATCCT GAGCCACGCT ACCAAGATGT TCCACTTGGT	6660
TCCATCAACT CTATGGGCTT GCCAAATAAT GGCTTAGACT ATTATTTGGA TTATCTTTTA	6720
GATTTGCAGG AAAAAGAGTC GAACCGAAT TCTTCTTAT CTCTGGTCGG CATGCTCTCA	6780
GAGGAAACCC ATACTATTTT GAAAAAAGTC CAAGAGAGTG ATTTTCGTGG TCTGACTGAG	6840
CTAAATCTTT CCTGTCCAAA TGTTCAGGT AAACCTCAGA TTGCCTATGA TTTTGAGACA	6900
ACAGACCGGA TTTTGGCAGA AGTGTTTGCT TACTTCACCA AACCTCTTGG AATTAAATTG	6960
CCACCTTATT TTGATATTGT TCACCTTGAC CAAGCGGCAG CTATTTTCAA CAAATATCCG	7020
CTCAAGTTTG TCAACTGCGT TAACTCTATC GGAAACGGCC TCTATATAGA AGACGAATCT	7080
GTCGTTATTC GGCCTAAGAA TGGTTTGGT GGAATTGGTG GAGAATACAT CAAACCGACT	7140
GCTTTAGCCA ATGTTACGCG CTTTATCAA CGTTTAAATC CTCAAATCCA AATTATCGGA	7200

1057

ACAGGTGGCG TTCTGACTGG TCGAGATGCC TTGGAACACA TCCTCTGTGG AGCAAGTATG 7260
 GTGCAGGTGG GAACGACCCT TCACAAAGAA GCGGTCAGTG CTTTGTACCG CATTACCAAT 7320
 GAACTGAAAG CAATCATGGT GGAAAAAGGC TACGAGAGCT TAGAAGATTY CCGTGGGAAA 7380
 TTGCGCTATA TTGACTAAAT TAAATCGAAA AATCTGAAGA AAGGAGAGAC GATGCTAGCC 7440
 ATTGAAGAAA GTCAGAAGTT GACTTTATCA AATTTACCGA GCCTGAGCCT ATTTACAGGG 7500
 ACAGATCAGG GTCAGTTTGA AGTGATGAAG AGTCAAATGT TGAAACAGAT TGGGTATGAT 7560
 TCTGCTGACC TCAACTTTGC CTACTTTGAT ATGAAAGAAG TAGTTTACAA GGATGTGGAA 7620
 CTGGAGTTGG TCAGCCTTCC TTTCTTTGCG GATGAGAAAA TCGTGATATT AGATTATTTT 7680
 ATGGATATCA CGACTGCTAA GAAACGCTTT TTGACAGATG ATGAGCTTAA GTCATTTGAG 7740
 GAATACCTTG ACAATCCTTC TCCAACAACC AAGTTGATAA TCTTTGCAGA AGGAAAGCTG 7800
 GATAGCAAAA GACGGTTAGT CAAATTACTT AAGCGTGATG CCAAGGCCTT CGATGCAGTA 7860
 GAAGTAAAAG AACAGAATT GCGCCAGTAC TTCCAAAAGT GGAGTCAGAA ACAAGGTCTG 7920
 CAGTTTACCA ATCATTCTTT TGAAAACTC CTCATCAAGT CGGGGTTTCA ATTTAGCGAA 7980
 ATCCAGAAAA ATCTTCTCTT TTTACAGTCC TATAAGGCGA ATTCGTATTAT TGAGGAAGAG 8040
 GATATTGTTA ACGCAATTCC CAAGACTTGC AGGACAATAT TTTTGATTTA ACTCAGTTTA 8100
 TTCTGACTAA AAAGATGGAT CAGGCGCGCG ATTTGGTGAG AGACTTGACC TTGCAAGGGG 8160
 AAGATGAAAT CAAACTGATT GCAGTCATGC TGGGACAATT TCGGACTTTT ACTCAGGTGA 8220
 AGATTTTGGC GGAGTCTGGC CAAACAGAAT CGCAGATTGC AAGTAGTTTA GGTAGTTATC 8280
 TGGGACGTAA CCCAAATCCT TATCAAATCA AGTTTGCAAT AAGAGATTCG AGAGGACTTT 8340
 CTTTGAGCTT TTTGAAGCAA GCTATTTCTT ATTTGATTGA GACAGACTAT CAGATTAAGA 8400
 CAGGTCTTTA TGAAAAAGGT TTCCTTTTGT AAAAGGCACT CTTACAGATT GCTAGTCAGG 8460
 TCAATTGACA TTTGTTGAAA CTACTAACCC GCGG 8494

(2) INFORMATION FOR SEQ ID NO: 164:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9707 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 164:

CCGGTCAGTT CGTTCAGTAC AAGGAATCAT AATGAACGAT CAATCAGAAA AAAAGACTAG 60

1058			
AAAGAAGACT GTATGGATAA TCGACCAATT GGTTTTGTGG ATTCGGGTGT CGGGGGCTTG	120		
ACCGTTGTGC GCGAGCTCAT GCGCCAGCTT CCCCATGAAG AAATCGTCTA TATTGGAGAT	180		
TCGGCGCGGG CGCCCTATGG CCCCCGTCCT GCTGAGCAAA TTCGTGAATA TACTTGGCAG	240		
CTGGTCAACT TTCTCTTGAC CAAGGATGTC AAAATGATTG TCATTGCTTG TAACACTGCG	300		
ACTGCGGTGC TCTGGGAAGA AATCAAGGCT CAACTAGATA TTCCTGTCTT GGGTGTAAAT	360		
TTGCCAGGAG CTTCGGCAGC CATCAAGTCC AGTCAAGGTG GGAAAATCGG AGTGATTGGA	420		
ACGCCCATGA CGGTACAATC AGACATATAC CGTCAGAAAA TCCATGATCT GGATCCCGAC	480		
TTACAGGTGG AGAGCTTGGC CTGTCCCAAG TTTGCTCCCT TGGTTGAGTC AGGTGCCCTG	540		
TCAACCAAGT TTACCAAGAA GGTGGTCTAT GAAACCCTGC GTCCCTTGGT TGGAAAGGTG	600		
GATAGCCTGA TTTTGGGCTG TACTCATTAT CCACTCCTTC GCCCTATTAT CCAAAATGTG	660		
ATGGGGCCAA AGGTTCAAGT CATCGATAGT GGGGCAGAGT GCGTACGGGA TATCTCAGTC	720		
TTACTCAATT ATTTTGAAAT CAATCGTGGT CGCGATGCTG GACCACTCCA TCACCGTTTT	780		
TACACAACAG CCAGTAGCCA AAGTTTGGCA CAAATTGGTG AAGAATGGCT GGAAAAAGAG	840		
ATTGATGTGG AGCATGTAGA ATTATGACAA ATAAAATTTA TGAATATAAG GATGACCAGG	900		
ACTGGTATGT TGGGTCTTAT AGTATTTTGG GTGGCGTTAA CAGTTTGAGC GACTATAAGA	960		
CAGATTTTCC TCTGTTTGAA TTCTCCAAAA TATTTGGAGA TGAAGAGTAT GGTTTCCCGC	1020		
TTTCAGTTAC TGTTTTACGC TATGGTCTTA TCTACCGTTT GTTCTCCTTT GTGGTAGACA	1080		
TGCTTAATCA AGAAATGGGA CGAAACTTGG AAGTTATTCA ACGTCATGGG GCCCTGCTCT	1140		
TGGTTGAAAA TGGGCAACTC TTGTATGTAG AATTGCCTAA AGAAGGGGTC AATGTTTCATG	1200		
ATTTCTTTGA GACAAGCAAG GTCAGAGAAA CCTTGTGTAT TGCGACTCGT AACGAAGGTA	1260		
AAACCAAGGA ATTCCGAGCT ATCTTTGATA AGTTAGGCTA CGATGTGGAA AATCTTAATG	1320		
ACTACCCCTGA CCTGCCTGAA GTAGCAGAAA CAGGTATGAC CTTTGAAGAA AATGCCCGCC	1380		
TTAAGGCAGA AACCATTCTT CAATTAACGG GCAAGATGGT TTTGGCAGAT GATTCTGGTC	1440		
TCAAAGTCGA TGTCTTGGT GGCTTACCAG GCGTCTGGTC AGCTCGTTTC GCAGGTGTGG	1500		
GAGCAACTGA CCGTGAAAAT AATGCCAAAC TCTTGACGA ATTGGCCATG GTCTTTGAAC	1560		
TCAAGGACCG CTCGGCTCAG TTCCACACAA CCCTAGTCGT AGCCAGCCCA AATAAGGAAA	1620		
GTTTAGTTGT TGAAGCAGAC TGGTCAGGTT ATATTAACCT TGAACCTAAG GGTGAAAATG	1680		
GCTTTGGCTA TGATCCCTC TTCCTTGTAG GAGAAACAGG TGAGTCATCA GCTGAATTAA	1740		
CCCTGGAAGA AAAAAATAGT CAATCTCACC GTGCCTTAGC CGTTAAGAAA CTTTGGAGG	1800		
TATTTCCATC ATGGCAAAGC AAACCATCAT TGTAATGAGC GATTCCCATG GCGATAGCTT	1860		

1059

GATTGTGGAA GAAGTCCGTG ATCGCTATGT GGGCAAAGTC GATGCTGTTT TTCATAACGG	1920
CGATTCTGAA CTACGTCCGG ATTCTCCACT TTGGGAGGGC ATCCGCGTTG TTAAAGGGAA	1980
CATGGACTTC TACGCCGGCT ACCCAGAACG TCTGGTGACT GAGCTTGGTT CGACCAAGAT	2040
TATCCAAACT CATGGTCACT TGTTTGACAT CAATTTCAAC TTTCAAAGT TGGACTACTG	2100
GGCTCAGGAG GAAGAGGCCG CTATCTGCCT CTATGGTCAC TTGCATGTGC CAAGTGCTTG	2160
GTTGGAAGGC AAGATCCTCT TTCTAAATCC AGGTTCTATC AGTCAACCAC GAGGTACCAT	2220
CAGAGAAATGT CTCTATGCTC GTGTGGAGAT TGATGATAGT TACTTCAAAG TGGACTTTTT	2280
GACACGAGAT CACGAGGTGT ATCCAGGTTT GTCCAAGGAG TTTAGCCGAT GATTGCCAAG	2340
GAGTTTGAGA CTTTCTTGTT GGGGCAGGAG GAAACTTTTT TGACCCCTGC TAAAAATCTA	2400
GCTGTGTTGA TTGATACCCA CAATGCGGAT CATGCGACCC TCTTGCTCAG TCAGATGACC	2460
TATACCCGTG TTCCCGTTGT GACAGATGAA AAACAGTTTG TTGGGACGAT TGGACTCAGA	2520
GATATTATGG CTTATCAGAT GGAGCATGAC TTGAGCCAAG AAATCATGGC GGATACGGAT	2580
ATCGTTCATA TGACAAAAC GGACGTAGCG GTTGTTCGCG CTGATTTTAC CATTACGGAG	2640
GTCTTGACA AGCTAGTAGA TGAGTCCTTC TTACCGGTTG TGGATGCAGA GGGTATTTTC	2700
CAAGGGATTA TTACGCGCAA GTCCATCCTC AAGGCCGTTA ATGCCCTCTT GCATGACTTT	2760
AGTAAGGAAT ATGAGATTCG ATGCCAATGA GAGACAGGAT TTCAGCCTTT TTAGAGGAAA	2820
AGCAGGGCTT GTCTGTCAAT TCCAAGCAGT CCTATAAGTA TGATTGGAG CAATTTTATG	2880
ACATGGTAGG TGAGCGGATT TCTGAGACCA GTCTCAAGAT TTACCAAGCC CAGCTAGCCA	2940
ATCTAAAAAT CAGCGCCAG AAGCGAAAGA TTTCGGCCTG TAACCAATTT CTATACTTTC	3000
TCTATCAAAA AGGAGAGGTG GACAGCTTTT ACCGCTTGGA ATTAGCCAAA CAAGCTGAAA	3060
AGAAGACGGA AAAGCCAGAG ATTCTATACC TAGACTCTTT TTGGCAGGAA AGCGACCATC	3120
CAGAGGGCCG CTTGCTAGCG CTCTTAATCC TAGAAATGGG GCTCTTGCCC AGTGAGATTT	3180
TAGCCATCAA GGTGCGGAC ATCAATCTGG ATTTTCAGGT GTTGCGAATC AGCAAGGCTT	3240
CCCAACAGAG GATTGTCACC ATTCCCACGG CCTTGCTTTC AGAATTGGAA CCCTTGATGG	3300
GGCAGACCTA TCTTTTGAAG AGAGGAGAGA AACCTATTTC TCGTCAGTGG GCCTTTTCGTC	3360
AGTTAGAATC TTTTGTCAAG GAGAAAGGTT TTCCATCCTT ATCAGCTCAA GTCTTACGTG	3420
AACAGTTTAT TCTAAGACAA ATAGAAAACA AGGTCGATTT GTACGAAATT GCAAAAAAAT	3480
TAGGATTAAA AACAGTCCTG ACCTTAGAAA AATATAGATA ATGGATATTA AATTAAAAGA	3540
TTTTGAAGGA CCCCTGGAAT TGCTCTTGCA TCTGGTTTCT AAGTACCAGA TGGATATCTA	3600

1060

CGATGTGCCC ATTACGGAAG TCATCGAACA GTATCTAGCC TATGTCTCAA CCCTGCAGGC	3660
CATGCGTCTG GAAGTGACGG GTGAGTACAT GGTTCATGGCT AGTCAGCTCA TGCTGATTAA	3720
GAGTCGTAAA CTCCTTCCGA AGGTAGCAGA AGTGACAGAC TTGGGGGATG ACCTGGAGCA	3780
GGACCTCCTC TCTCAAATCG AAGAATATCG CAAGTTCAAG CTCTTGGGTG AGCACTTGGA	3840
AGCCAAGCAC CAAGAACGGG CCCAGTATTA TTCCAAAGCG CCGACAGAGT TGATTTACGA	3900
AGATGCGGAG CTTGTGCATG ACAAGACGAC CATTGACCTC TTTTGTGACTT TTTCAAATAT	3960
CCTAGCCAAG AAAAAAGAGG AGTTTGACACA AAATCACACG ACGATCTTGC GGGATGAGTA	4020
TAAGATTGAG GACATGATGA TTATCGTGAA AGAGTCCTTG ATTGGACGAG ATCAATTGCG	4080
CTTGCGAGAT TTGTTCGAAG AAGCCCAGAA TGTCCAAGAG GTCATCACCC TCTTTTGGC	4140
AACCTTAGAG TTAATCAAAA CCCAGGAGTT GATCCTCGTG CAAGAGGAGA GTTTTGAGGA	4200
TATCTATCTC ATGGAAAAGA AGGAAGAAAG TCAAGTGCCT CAAAGCTAGA CTTGATAGAG	4260
AGGAAAGATG AGTACTTTAG CAAAAATAGA AGCGCTCTTG TTTGTAGCGG GTGAAGATGG	4320
GATTCGGGTC CGCCAGTTAG CTGAACTCCT CTCTCTGCCA CCGACAGGCA TCCAGCAAAG	4380
TTTAGGAAAA TTAGCCCAGA AGTATGAAAA GGACCCAGAT TCCAGTTPGG CTTTGATTGA	4440
GACAAGTGGT GCTTATAGAT TGGTGACCAA GCCTCAATTT GCAGAGATTT TGAAGGAATA	4500
CTCTAAGGCG CCTATCAACC AGAGCTTGTC TCGGGCTGCC CTTGAGACCT TGTCCATTAT	4560
TGCCTACAAA CAGCCGATTA CGCGGATAGA AATTGATGCC ATCCGTGGAG TTAACCTGAG	4620
TGGAGCCTTG GCAAAGTTGC AGGCTTTTGA CCTGATAAAG GAAGACGGGA AAAAGGAAAT	4680
ATTGGGGCGC CCCAACCTCT ATGTGACTAC GGATTATTTT CTAGATTACA TGGGGATAAA	4740
CCATTTAGAA GAATTACCAG TGATTGATGA GCTTGAGATT CAAGCCCAAG AAAGCCAATT	4800
ATTTGGTGAA AGGATAGAAG AAGATGAGAA TCAATAAGTA TATTGCCAC GCAGGTGTGG	4860
CCAGTAGGAG AAAAGCAGAA GAGCTGATTA AGCAAGGCTT GGTGACGGTT AACGGCCAAG	4920
TGGTGCGTGA ACTAGCAACC ACTATCAAGT CAGGCGACAA GGTGGAAGTT GAAGGTCAAC	4980
CTATCTACAA CGAAGAAAAG GTCTACTATC TGCTTAACAA ACCACGCGGT GTGATTTCCA	5040
GTGTGACAGA TGATAAGGGT CGCAAGACGG TTGTGACCTT CTTGCCCAAT GTCAAAGAGC	5100
GTATTTACCC TGTGGGTCGT TTGGACTGGG ATACATCAGG TGTCTTGATT TTGACCAATG	5160
ATGGGGACTT TACAGACGAG ATGATTCACC CTCGTAATGA GATTGACAAG GTTTATGTCG	5220
CGCGTGTAA AGGTGTGGCC AATAAGGACA ATCTCCGCCC CTTGACCGT GGTCTTGAGA	5280
TTGATGGTAA GAAAACCAAG CCAGCTGTTT ATGAAATCTT CAAAGTGGAC CCACTCAAAA	5340
ATCGCTCTGT GGTGCACTG ACCATCCATG AAGGGCGTAA CCATCAGGTT AAAAAGATGT	5400

1061

TTGAAGCTGT TGGTCTCCAA GTAGATAAGT TGTCTCGGAC TCGTTTCGGA CACCTAGACT	5460
TGACAGGACT CCGTCCAGGA GAATCCCGTC GTCTTAATAA AAAAGAAATC AGCCAACTAC	5520
ACACCATGGC TGTAAC TAAG AAATAATGAA ACGAATTTTA ATAGCGCCTG TGCGCTTTTA	5580
CCAACGTTTT ATCTCACCAG TCTTTCCACC CTCTTGTCGC TTTGAGCTGA CTGTTCCTAA	5640
CTACATGATT CAGGCTATTG AAAAACATGG GTTTAAGGGG GTATTGATGG GCTTGGCTCG	5700
GATTTTACGT TGTATCCCT GGTGAAAAC AGGTAAGGAC CCCGTTCAG ACCGCTTTTC	5760
CCTTAAACGA AATCAAGAAG GGAATGAGG TGGGGTAAAT AGATTTCAA ATGATAAAAA	5820
CGCATCCTAT CAGGTTTGAG TGAAC TTGAT AGGATGCGTT TTAGAATGTC AAAATTTTAT	5880
ACTCTTCGAA AATCTCTTCA AACCGCGTCA GCTTTCATCT GCAACCTCAA AACAGTGTTT	5940
TGAGCAACCT GCGGCTAGTT TCCTAGTTTG CTCTTTGATT TTCATTGAGT ATTAAATTGA	6000
GT TTGAAGTG GCTTATTTCA AAGCTTTTGT TATGCTTCA ATCATGAGTT TTGTTGATTC	6060
AAGTCCGCCT CCGCTTAGAT ACCAGAGGTC TGGTGTTAGT TGGATAATCT TACCATTTTT	6120
AGCAGCAGGT GTTTCAGCGA TAAGGGCATT TTCTAGGACA CCGTCGTGTC TAGAGTTGTC	6180
CCCACCGATG GCAAGGGTAC GGTGATGAC AAAGAGGATG TCAGGGTTGA TTTCTTTGAC	6240
ACTTTCAAAG CTGACTTCTT GTCCGTGGCG TGAGTCTTCA AATTTTGTAT CAGTTGGTTT	6300
GAATTTCAAG GTTTGGTACA AGAAAGAGAA ACGAGATTG GCACCAAAGG CTGCCATTTT	6360
TCCTTCATTA AGGAGGATCG CAAGGGCTTT TTTGTCAGAG CTTCATTTT TAGTAGCGAC	6420
TTCTTGATG CTCTTGCTA GCTTGGTCAA TTCTTCCTTG GCTTTCGTG TACCAGTTTC	6480
GCCGAAGGCA CTTGCTAAGG ATTCGATATT AGCCTTGGTA GAAGTCCAGT AGTCGTCCTT	6540
GCTTGCTTGG AAGAGAACGG TTGGGGCGAT TTCTTTGAAT TTGTCTACGA ATTTTGTGT	6600
ACGTGGCGAA GCGATAATCA AATCAGGCTC AAGGGCGGCG ATAGCTTCTA AATCAGGTTC	6660
TTTCATAGAA CCAACATTTT TGACAGTTCC CACTAGTCT TTTAGATAAG TCGGAACAGT	6720
TTTGTAGGC ATTCCGACGA TATTTTTTTC AAATCCTAAA GCGCGAATAG TATCCGCAGC	6780
GCCGAGGTCA AAGGTCACAA TCTTTTCAGG AACTTTGAA AGTTTGACCT CGTCCAGTGA	6840
ACTTTTAATG GTTACCTCTG TTGGAGCAGA GCTACTGGTC TCTGTCTGAC TAGTGCTTGA	6900
GT TTGTA CTA TGACACCAA GTAGGAGCAA GAAGCTGGCC ACTAGGGCAG TGAAATAAAG	6960
TTTAAGGGAT GTTTTCATAA TTTCTCCTTT TTAAATGTG ATAACGATTT AGGGAGTCTC	7020
TTAATCTTAT TGAATAAGAG ACTGAAGGTT CTCTAACTTG ACCTTTTATG TTACTAGCTA	7080
TAGATACAGA TCTTTTGTG ATTGATATCA GCTAGCGTGA TGGGAATCTC ATAAAGTTGA	7140

1062

CTGAGCAGGT CAGCCTGCAT GATTTGATCG GTTCTTCCCT TGCTAAAGAC CTGGCCGTCC	7200
TTGAAGGCGA CAATTTTCATC TGCATACTGA CTGGCCATGT TGATATCGTG GAGGACGATG	7260
ATAATGGTCT TGCCGAGTTC CTCCACCAGT CGTCGAAGAA TCTGCATCAT GCTGACGCTT	7320
TGCTTGATAT CGAGATTGTT GAGTGGTTTCG TCCAGCAAGA TAAAGTCCGT ATCCTGGGCC	7380
AGTACCATAG CGATAAAGAC GCGCTGGAGT TGCCCCCCTG ACAGGCTATT GATGTAGCGG	7440
TCTTTTAAGT TGGTCAGTTC TAAATAGTTC AGAGTTTCTC GGATTTTTTC CCAGTCTTCT	7500
GATCTAAGTC GACCTCGGCT GTAGGGAAAA CGTCCAAAAC TGACCAGTTC TTCAACAGTC	7560
AATTTGGCTT GGTAATTGAT TTTCTGTTTT AGGATGGTTA GTTCTTGGGC CAGTTCTTGC	7620
GAATTCACGC TCTCGATTTC ACGTCCTTTG ATACTGAGAA CTCCTGATC TTTCTTGGTT	7680
AGCCTGCTCA TGATGGAGAG GAGAGTCGAT TTTCCAGCAC CATTTGGACC AATAAAGGCT	7740
GTCAAGTTTT GAGGACTGAC TTCAAGCGAA ATGCCTTGCA AAATATCCTG TTTTGAATG	7800
GATTTGTCAA TGTTTTCCAG TTTCACTGAC GAGACCTCCT ATATAGTAAG ATAAAGAATA	7860
AGAAGCCACC CACACTCTCA ATGATCATAC TGATACGAAT TTCCAGTGCA AAGACTCGTT	7920
CAATCAAGGC TTGCCCCAAG GTTAAGCTAA TAAATCCAAC CAGAATGGCC ACTATAAAGA	7980
GTAACCTGTG CTGATAGTCT TTGACAATCA GGTAGGTGAG GTTGGCCAGT ATAAAGCCGA	8040
AGAAGGCCAT AGGTCTTACC AAGGCAGTGG CCGTTGAGGT CAAAAGCACG ATTCCCCAGA	8100
GGAGCTCTTT TGTGTTCTTT TCAACATCGA GTCCCAATAT CTGAGCCGTT TCTCTTTGCA	8160
GGTGCAAGAC ATCTAGAACG ACTGCTTTTC GAAAGAAAAA GATTGTCAA GCGAGGATGA	8220
TCAGAGAACC GATGGCTAGG ATGGAAGTGT TGAGATGTTG AAAGGAGGCA AAAAGACTAT	8280
TTTGCAAGTT ATCGTATTCG TTTGGATCCA TTAGGACTTG AAGGAAGGTG CTGATATTTT	8340
GAAAGAGACT TCTGAGCGCT AGACAGATCA GCAGGACGAA GACCAGGTCT TGCTTCATCA	8400
GTGCTTCAA GTAACCTTGT AAGGCGAGAA AGAAGAGGGA CTGGACAAGA AGTAAGACTA	8460
GGAAATCTAA GATAGGGGAT TTGCCAAGTT GAAGAACTT GCTTTCAAAA ACCAGTAGTA	8520
GGGTTTGTAG TAGGACGTAG AAGGATTCAA TTCCCAAAT ACTAGGCGTC AGGAAGCGAT	8580
TTTCCGTCAG GGTTTGAAAA CTAATGGTCG AAATCCCAGT CGCGATGGCT ACCAAGAGAT	8640
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AAAAGTAGAG AAGACAAGCT CCGATGGCAA GAATAATGAG AATCCAGAAG AGCTTGGTAT	8760
GTTTGCTTTT AGTCTGCATC TTTTCGTCCT CCTCTCCAGA GAAGTAGGAT AAAGACGAGA	8820
CTACCGATGA TTCCTAGCAA GAGACTGACA GACAACCTCAT AGGGCCTAAT CAGAAGCTCG	8880
GATAGGATAT CGCAAGCCAG AACTAGATTG GCACCAACCA GTGCGACCAT GAGTTTGGTT	8940

1063

TGACTTAGAT TATCTCCATA GCGCTTGCGA ACAAGATTGG GAACGATAAC TCCGAGAAAT	9000
GGTAGGCCAC CCACGGTAAT CATGGTGACG CTTGTGCTTA GCGCCACCAG AAAGAGGGCC	9060
AGTTTTTCAA GTAGGGAGTA GGAAATCCCC AAATCTCTGC TGGTTTCTTT CCCTAGATTTC	9120
ATGATGGTGA AGGTTTGGGA TAATTTCCAA ACGGTTATCA GGATGATGAG GCCTAAGAAG	9180
AGCCACTCAT ACTGATGGGT CTGAATCATG GAGAAGGAGC CCTGGGTCCA GGCAGTCATA	9240
CTCTGAACCA GATTGAAACG ATAGGCGATA ACTTCTGTGA CTGAGCCGAT AATCCCGCTA	9300
TAGATGATCC CAATCAGAGG CAACATCCAC CTTTCCTTTA CAGTAAAAAT GGTCAATAAG	9360
GCTAGGAAGA AGAGGGTGAA TACGATGGAT GAAACAAAAG CGAAGAGCAT CTTGTGGGTC	9420
AGACTAGCCG ATGGAAAGAC AAAAAGGCTC AGCACCATTTC CCAGTTTGGC GGCTTCAGTC	9480
GTTCCAACTG TACTCGGTGC AGCAAACTGA TTTTGGGTAA TAGTCTGCAT GAGAAGGCCT	9540
GCCATACTCA TACTAGAGGC AGTCAGGAGA ATACTGATAG TTCTTGGGAG ACGGGACTCT	9600
TGAAAGAGGA GCCAGGTCTG CTGGTCGAAA TCAAATAGCT TTCCCCATGA AAAATCACTG	9660
GTCCCAATGC TAATAGAGAG AAAGACTAGG AGTAGAAGTA AGCCAGG	9707

(2) INFORMATION FOR SEQ ID NO: 165:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5910 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 165:

CCGCAATTAT GCTTGAAAAG GAGTATACTT ATAAGTAACG CAAACGTTTG CGTCTGAAAA	60
ATACGCAACG TTCCATTATT TTAACACACG AGGTGCTATT ATGAAAAAAC GTCAAAGTGG	120
TGTGTTGATG CACATCTCTT CTCTTCCAGG AGCTTACGGA ATCGGATCAT TTGGTCAAAG	180
TGCTTACGAC TTCGTTGATT TCTTGGTCCG TACAAAACAA CGTTACTGGC AAATCCTTCC	240
ATTAGGAGCA ACTAGTTACG GGGATTCTCC TTACCAATCT TTCTCAGCCT TCGCAGGAAA	300
CACTCATTTT ATCGATTAG ATATCTTGGT GGAGCAAGGT TTGTTGGAAG CAAGTGACCT	360
TGAAGGAGTT GACTTTGGTA GCGATGCGTC TGAAGTTGAC TATGCTAAAA TCTACTATGC	420
ACGTCGTCCT CTTTTAGAAA AAGCGGTGAA ACGTTTCTTT GAAGTCGGAG ATGTTAAAGA	480
TTTTGAGAAA TTTGCTCAAG ACAACCAATC ATGGCTTGAG CTCTTTGCTG AGTATATGGC	540
TATCAAAGAG TATTTTGACA ATCTTGCTTG GACTGAATGG CCAGATGCAG ATGCTCGTGC	600

1064

TCGTAAAGCT TCAGCACTTG AAAGCTATCG TGAGCAATTG GCAGACAAGT TGGTTTACCA	660
CCGTGTGACT CAATACTTCT TCTTCCAACA ATGGTTGAAA TTGAAAGCTT ACGCTAACGA	720
CAACCACATC GAAATCGTTG GGGACATGCC AATCTACGTA GCGGAAGATT CAAGTGATAT	780
GTGGGCAAAT CCACATCTCT TCAAAACAGA TGTCAATGGT AAGGCTACTT GTATCGCAGG	840
ATGCCCCACCA GATGAGTTT CTGTAACTGG TCAGCTTTGG GGTAATCCAA TCTATGACTG	900
GGAAGCAATG GACAAAGACG GCTACAAATG GTGGATTGAA CGCTTGCGTG AAAGCTTCAA	960
AATCTACGAT ATCGTTCGTA TCGACCACTT CCGTGGCTTC GAATCTTACT GGGAAATCCC	1020
TGCTGGTTCC GATACAGCAG CACCTGGTGA GTGGGTGAAA GGTCAGGTT ACAAGCTTTT	1080
TGCAGCCGTT AAGGAAGAAC TTGGTGAGCT AAACATCATC GCAGAAGACC TTGGCTTCAT	1140
GACAGATGAA GTGATCGAAT TGCGTGAACG TACTGGCTTC CCAGGAATGA AGATTCTTCA	1200
ATTTGCCCTC AACCCAGAAG ACGAAAGCAT TGATAGCCCA CACTTGGCAC CTGCTAACTC	1260
AGTTATGTAC ACAGGAACAC ACGATAACAA TACGGTTCTT GGTGGTACC GTAATGAGAT	1320
TGATGATGCG ACTCGTGAGT ACATGGCTCG TTACACGAAC CGTAAAGAAT ACGAAACAGT	1380
GGTACACGCT ATGCTTCGTA CAGTATTTTC ATCAGTTAGC TTTATGGCAA TTGCAACTAT	1440
GCAAGATTTA CTAGAATTGG ATGAGGCAGC TCGTATGAAC TTCCCATCTA CCCTTGGTGG	1500
AAACTGGTCT TGGCGTATGA CTGAAGATCA ATTGACACCA GCTGTGAGG AAGGTTTGCT	1560
TGACTTGACA ACAATTTATC GCCGAATTAA TGAAAATTG GTAGATTTAA AGAAATAAGA	1620
CAATAATCAG GAGACAACTA AACATGTTAT CACTACAAGA ATTTGTACAA AATCGTTACA	1680
ATAAAACCAT TGCAGAATGT AGCAATGAAG AGCTTTACCT TGCTCTTCTT AACTACAGCA	1740
AGCTTGCAAG CAGCCAAAAA CCAGTCAACA CTGGTAAGAA AAAAGTTTAC TACATCTCAG	1800
CTGAGTTCTT GATTGGTAAA CTCTTGTCOA ACAACTTGAT TAACCTTGGT CTTTACGACG	1860
ATGTTAAAAA AGAACTTGCA GCTGCAGGTA AAGACTTGAT CGAAGTTGAA GAAGTTGAAT	1920
TGGAACCATC TCTTGGTAAT GGTGGTTTGG GACGTTTGGC TGCCTGCTTT ATCGACTCAA	1980
TTGCTACTCT TGGTTTGAAT GGTGACGGTG TTGGTCTTAA CTACCACCTT GGTCTTTTCC	2040
AACAAGTTCT TAAAAACAAC CAACAAGAAA CAATTCCAAA TGCATGGTTG ACAGAGCAAA	2100
ACTGGTTGGT TCGCTCAAGC CGTAGCTACC AAGTACCAT TGCAGACTTT ACTTTGACAT	2160
CAACTCTTTA CGATATGAT GTTACTGGTT ATGAAACAGC GACTAAAAAC CGCTTGCGTT	2220
TGTTTGACTT GGATTCAGTT GATTCTTCTA TTATTAAAGA TGGTATCAAC TTTGACAAGA	2280
CAGATATCGC TCGCAACTTA ACTCTCTTCC TTTACCCAGA TGATAGTGAC CGTCAAGGTG	2340
AATGCTCCG TATCTTCCAA CAATACTTCA TGGTTTCAA CGGTGCGCAA TTGATCATCG	2400

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ACGAAGCAAT CGAAAAAGGA AGCAACTTGC ATGACCTTGC TGA CTACGCA GTTGTCCAAA	2460
TCAACGATAC TCACCCATCA ATGGTGATTG CTGAATTGAT TCGTCTTTTG ACTGCACGTG	2520
GTATCGATCT TGACGAAGCA ATCTCAATTG TTCGTAGCAT GACTGCCTAC ACTAACCACA	2580
CAATCCTTGC TGAAGCGCTT GAAAAATGGC CTCTTGAATT CTTGCAAGAA GTGGTTCCTC	2640
ACTTGGTACC AATCATCGAA GAATTGGACC GTCGTGTGAA GGCAGAGTAC AAAGATCCAG	2700
CTGTTCAAAT CATCGATGAG AGCGGACGTG TTCACATGGC TCACATGGAT ATCCACTACG	2760
GATACAGTGT TAACGGGCTT GCAGCACTCC ATACTGAAAT CTTGAAAAAT TCTGAGTTGA	2820
AAGCCTTCTA CGACCTTTAC CCAGAAAAGT TCAACAACAA AACAAACGGT ATCACTTTCC	2880
GTCGTTGGCT TATGCATGCT AACCCAAGAT TGTCTCACTA CTTGGATGAG ATTCTTGGAG	2940
ATGTTGGCA CCATGAAGCA GATGAGCTTG AAAAACTTTT GTCTTATGAA GACAAAGCAG	3000
TTGTCAAAGA AAAATTGGAA AGCATCAAGG CTCACAACAA ACGTAAATTG GTCGTCCT	3060
TGAAAGAACA CCAAGGTGTG GAAATCAATC CAAATCTAT CTTTGATATC CAAATCAAAC	3120
GTCTTCACGA GTACAAACGC CAACAAATGA ACGCTTTGTA CGTGATCCAC AAATACCTTG	3180
ACATCAAAGC TGGTAACATC CCTGCTCGTC CAATCACAAT CTTCTTTGGT GGTAAAGCAG	3240
CTCCAGCCTA CACAATCGCT CAAGACATTA TCCATTTAAT CTTTGCATG TCAGAAGTTA	3300
TTGCTAACGA TCCAGCAGTA GTCACACT TGCAAGTAGT TATGGTTGAA AACTACAACG	3360
TTACTGCAGC AAGTTTCCTT ATCCCAGCAT GTGATATCTC AGAACAAATC TCACTTGCTT	3420
CTAAAGAAGC TTCAGTACT GGTAAACATG AATTCATGTT GAACGGAGCT TTGACACTTG	3480
GTACTATGGA CGGTGCTAAC GTGGAATCG CTGAGTTGGT TGGAGAAGAA AACATCTACA	3540
TCTTCGGTGA AGATTCAGAA ACTGTTATCG ACCTTTACGC AAAAGCAGCT TACAAATCAA	3600
GCGAATCTA CGCTCGTGAA GCTATCAAAC CATGGTTGA CTTCATCGTT AGTGATGCAG	3660
TTCTTGCAAGC TGGAAACAAA GAGCGCTTGG AACGTTTTTA CAATGAATTG ATCAACAAAG	3720
ACTGGTTCAT GACTCTTCTT GATTTGGAAG ACTACATCAA AGTCAAAGAG CAAATGCTTG	3780
CTGACTACGA AGACCGTGAC GCATGGTTGG ATAAAGTCAT CGTTAACATT TCTAAAGCAG	3840
GATTCTTCTC ATCTGACCGT ACAATCGCTC AGTATAACGA AGACATCTGG CACTTGAAC	3900
AATACTCTTC GAAAATCTCT TCAAACCACG TCAGCTTTAT CTGCAACCTC AAAGCAGTGC	3960
TTTGAGCAAC TCGCGCTAGC TTCCTAGTTT GCTCTTTGAT TTTCATTGAG TATAAGATAC	4020
AAATTTATAC TAATACATTT TGTAAAAAAG CGAGTTTCGA TTGAAATTCG CTTTTTAAT	4080
GATGTAGATT TGGGTCAATC TTGTCTAAAA ATAGGGAAT CCTAGATACA GTGAAGGCTT	4140

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TAAATGCTGG TTTTACTGT CCTCAGCCTT ATATTTTTC GTAGTTGGTT ACCTCATATC	4200
TATTATATTC GCTTACATAA AGTATTATAA TATAATTGTA GGAAAGAAGG TGTTTTATG	4260
ATATACACAC TTAAATTGGT GTTGTATTAT ACCTTCTTG TAATAAGCTT GTTACCTGAT	4320
AAGATTTTTG GAAAAATAA AAAAATTGG AAAATAGTTT TTGCAATATT GACGGCAGTG	4380
GCAGCATTGT CATTTATGTA CTAAGTTATT TTAAGAATGT AGGGAAATAA ACCCTACATT	4440
CTTTTAGTT TTTCTGTT TCTAAATCT ATTTATCCAA GCGATTCAAC ATTTCTTGCT	4500
TCTTCGCTTC AAGTCTGCA CGCTTTTCTT CGATTTCCGC ATGTTTTTTC TCGAGTTCAG	4560
AACAACCTGC ACCATTGCTA AATTCTTTTC GCCATCAGGA GATAGGGTGA GTCGACATGT	4620
CTATTACTCA CCCAAAGCAG TCCTACAAAG CAGGAATTTT CTGTACTTT TTTGGAAATA	4680
GTAACGTTTA TACAGCTTTG ACACCTCGTA TCAAAGCGCC AAACACACTC CGAGGGGTTT	4740
ACAGAAAGCA GAAAGGAAT GATCTGGTAT AAGATCATTC CTTTTCyCTC TTTTCTTTA	4800
AGTAATTATA TACAATGTAC GACGAAGTCG TCATTGCAAT GCTGATCCAC CACCTAAAGG	4860
GAACTTTAAA CAACATTGAT AAGATAAGA ATATAACAA CGAAATACG TTATACCCAA	4920
TTAATTTTAT TGTATATCTC ATGATTAAA GTTAATCCTT CCGTTGTTAG GAATGGCATC	4980
ATTTTATCC CATAATTGTG CTAAATAAGT CCCCGGTGAT AATAAATTC TAGCGAATTC	5040
TAAAGCAACA TCATTTACAA ACCAACTACC TAGATATCTA GAAATTGCTG AACGAATAGC	5100
ACTTTTGTCT GCATGTTTC CTTTACTTT AATTAGATTT GCAAGGCCTG CAGTAGTTCC	5160
TCCTAATGCT AAAGCTATTG CAGTATCTAA TAGAGCACCC ATTTGATTAA CTGTAATACC	5220
TTGCCAACT GCTCTAAATG GAGAGTATGT AGGTGGGATT GTATAATCGC CTGTAATTG	5280
TCGGTTAATT ACTTCTTGA TCCATTGTTG TGAGACGTCT GGATGAAAAG ATTGGATTTT	5340
GTTTGCAAGT GTATTGATTT GTTCTTCTGT TAGAGAAGTG ACAGGTTGAA GTTCCATATT	5400
TGTTTCAATT TGTGATACTT GTTCAGAAGC GTATACAGCT GAAACACTTG GAATCGCTGA	5460
TACAATTAAC ACAATTGACG TCAAAAAAC CGAAATAAAT TTCATTAATT GTTTCATGAG	5520
CTTTCTCCT TTTTATTGTC ATCTGCTTAC ATTTTATCAT ATACTGTTAT TATAGTCAAA	5580
AAAATATGCT ATTATGTTAA AAAATATTT TTCAAATAT AAATGGACGG ATTTATTTTG	5640
GATTTTATTT GTTATTTGA CTGCCTCTA TATTGGTAAC CATGATTTGT TTAATCTCAA	5700
TCATCAAGAA TTCTCTTTTC GTGGTAGCGT TTGGGGTCTG GTACTGGCCT TATATCACTT	5760
ACTATTCATT GATAAGTTTG TTATATCGAA TCGAAAATAA AGATTAGAGC TATGCTTGAC	5820
TGTGTACTTT TAGGATTTAT TTTGGAGGAA GATTTGTCT CTATTATTTA TTATTTTAAA	5880
TTTATTTATT TTGTATAAGA TCTATTCCTT	5910

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(2) INFORMATION FOR SEQ ID NO: 166:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5406 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 166:

GGCATAGCGA CTCATTTTTT CAACTGTCCA GGCTGGATAC CAGACTAATT TAACCTCAGT	60
ATCCGTTACT TCTGGAACCT CTATCATAGC ATCATAAATC TGGTCTGTCA AAAGGTCTGC	120
TAAGGGACAA CCCATAGTTG TCAAAGTCAT GTCAATCTCT GTTTGCCCTG TGTACCGTC	180
AAAAAGAAAT TCATAGATCA AACCAAGATT GACAATATCG ATTCCCAACT CAGGGTCGAT	240
GACTTCTTCC AAGGCTGTTA AAATCCGTGT TTTGATGTTT TCAATTGCT CTCTGTATA	300
AGCCATATTT TCCTCACTCT TAGTCTTCAA TAAATCAGG AAGCGGTTG CTACGACTTG	360
GTTGGCGTAG TTTTCTCAA GCCTTTGCTT CAATCTGACG GATACGCTCA CGAGTTACGT	420
TAAAGACTTT CCCACATCT TCAAGTGTGC GCATTTTTC ATCATCTAGT CCAAAACGTA	480
GACGCGAAC ATTTTCTTCA CGGTCTGTAA GAGTATCTAA GATTTTCATCC AATTGCTCAC	540
GCAAGACGAT ACGAGTCGTA TAATCCACTG GATTTTCAAT CACTTCATCT TCGATAAAGT	600
CTCCAAGGTG GCTATCGTCC TCTTCACCGA TAGGAGTTT AAGAGATACT GGTCTTGGG	660
CAATCTTCAA GATTTTCAGG ACCTTATCAG GTGTCATATC CATTCGTTCA GCAATCTGTT	720
CTGGTGTCGG ATCTTGCCCC AATTCTTGAA GGAGATTCCG CTGTTACGTA ACCAATTTAT	780
TGATAGTTTC AACCATGTGA ACTGGGATAC GGATGGTACG AGCTTGGTCC GCAATAGCAC	840
GAGTGATAGC CTGACGAATC CACCAAGTTG CATAAGTTGA AAAGTTGAAC CCTTTAGAAT	900
AGTCAAACTT GTCAACCGCC TTCATCAAGC CCATATTTCC TTCTTGAATC AAGTCAAGGA	960
ACTGCATACC ACGACCGACA TAGCGTTTGG CAATGGAAAC AACCAAAACGA AGATTGGCTT	1020
CCGCAAGACG TTGTTTGGCT TCGATATCAC CAGCTTCAAC AGCCAGTGCC AACTCTTTCT	1080
CCTCTTCATG GGTCAAGAGA GGAACGACCC CTATTCTTTT CAAGTACATA CGGACAGGGT	1140
CATTGACCTT AGCAGAAGTT GACCCAATCA AGTCCTCATC GCTGAGTTCT GGTCTTCTT	1200
CATTGCTGAG AACACGCGCA CTGGAATTC CTTCGTTATC TGTGATAGAA ATGCCTGCAT	1260
CCTGAATCCG TTGCAAGAGA TCTTCAATCC CATCAGCGTC CAAGGTAAAA GGAATAACCA	1320
GACTTGCAAT GATTTTCATCA TCTGTTGCTG TCCCTTTTGG CTATGATTA CGGATAAATT	1380

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CTGCTACCTG TACGTCAAAT GTTGTACTT CTTTTGTGTT TGTGCCATT ATTACTCCAT	1440
TCTTCTCTTT TGGGAAATTA AACGTTCCAA TTCTTCTAGG GCTGTATCTG TATCTCCTAC	1500
ATGGCTAGCT TCCTGCACCT TCTTTTGAT TCTCATATTG TCCTGATTCA AGAGAGCCTT	1560
GTTTCGAGTC ATCTCTACTT CACTAAGTTC CTGCGGCGAT ATCTCAGCAG GCAAATCCTG	1620
AGCTAAACT TGGTACCAAG CTCTTCAAC TTCCTCTGTC TGCTCTGCTA AAACCTCTGG	1680
AGGAAGATTT CCATACTGGC CAAGCAAGTC ATATAAGACC TGAAATTCAG GTGTAGCAAA	1740
TGCAAAGTCT TCTCGCAAAC GGTAAATCGTT CAAAACAAGA GGGGATTCCA TCATCCGATA	1800
GAGTAGATGG GCTTCTGCCC TCATAATAGC CGATAACTGC TTGGTGACAG GCATGGTGAT	1860
TGGCGTCGGT CTGGAAATTC CTTCCATGCG ATTCTGCCTT TGCACCTGAC GACTCTCAT	1920
AACAATCTGC TCAATCTGGG TATAATCAAA GGACGCCAGA CTGTCAGCTA AAATATGAAT	1980
ATAGCTGTTT TGAGCAGCGA TGGACTTTTC TTGAACAATC AAGGGAGCTA TTTTTCAAG	2040
AAACTCAATC TGAGCCTGCA GATTTTCACT GTTTTCAGGT TTGTACTGAT GAATGTAGAA	2100
CTCAATCGGA CTAATACGAG TTTTCGTTAA TAGATAGGCC AAGTCTTCTG GACCATTTTT	2160
TTGTAGATAC TCATCAGGAT CCAAGTTATC AGGCATGCTG ACGATTGCA CAGGCATATC	2220
ACCAATTTCA TCCAATGCTT TCAATGTGCG GGCTTGCCCA GCCTTATCTC CATCGTAAAC	2280
AAGAACCAAT TTCTTGTTA ACCTTTTCAG ATGCTCAACA TGCTCTCGAC TCAAGGCTGT	2340
TCCCATCGAC GCCACAGCAT TTTCGATTCC AGCCCGATAG GCTGCAATAA CATCCATGAA	2400
TCCTTCCATC AGGTAAATCT CACTAGCTTT TCCAGAAGAT CTTTTTGCCC TATCCATATG	2460
ATATAATTCG TAACTTTTGT TAAAAATTGC AGTCGATCGG CTGTTTTTAT ACTTAGAAGT	2520
TTGTGAATCC GTTTTTTGCC AGATACGACC TGAGAAGGCA ATGACCTTTC CTTGGTCATT	2580
TGTCAGGGGA AACATAATGC GATTGTGAAA GGTGCTTACA AATTGATTGG CATCCGAGAG	2640
ATAAACAGG CCTGAATCCA GTAAATCCTC TTCACGATAC TGATCAGACA AACGTTGATA	2700
GAGATAGTTT CGTTCTGGAG GTGCTAAACC AATCCAAAAA TGTTTAAGCA CTTCATCTGT	2760
CAACCCCGC TGATAAAGGT AATTTCTGGC CTCTTCGCCC ATAGTCGTTG TCATGAGAAT	2820
AGCATGGTAA AATTGGCTG CATCTTCGTG CATATCATAA AGAGCTTGGT GAGGTGAGGC	2880
TGACTTCTGC TCACTATAAA GCGGTTTTTC AACCTCAATT CCAACACGCT GACCTAAGAT	2940
TTGGACTGCT TCTATAAAGG GAACCCCTTG GTACTCCTCG ATGAACTTAA AGACATCACC	3000
TGAGCGACCA CAACCGAAAC AGTGATAAAA CTGCTTGTC TCTACAACAT TGAAAGATGG	3060
TGTTTTTTCA CCATGAAAAG GACAGAGCCC TAGATAGTTC CGTCCTGCCT TTTGTAAAGA	3120
AATCACATCT CCTATGACTT CCACAATGTT GGCATTGTTT TTGATTTCTT CAATGACTTG	3180

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TTTGTC AACC ATACACAATA CCTCCATGTT ATCATAGTTT ACTTTATATA GTATACTTTA	3240
TTTCAGAAAA AAAGTAAACC ATTTCACTCA TTTTCCCTAC TTTATTCAAA GAGTTGATAA	3300
TAATCAGAGA TTTTCATTTT TGCTTTTCT TCTTGGTTTA AATCTTGGAT AATTCGTCCT	3360
TCITTCATGA CAATCAAGCG ATTGCCGTAT TTGAGAGCAT CTTCCATATG ATGAGTAATC	3420
ATAAGGGCTG TTAGCTGATC TTTCTTAACA AATTCATCTG TCAATTCCAT CAAAGCAACA	3480
CTAGTCTTTG GATCCAGGGC AGCAGTATGC TCATCTAACA GGAGTAATTC AGGTCGCTTC	3540
AAGGTTGCCA TCAAGAGACT CAAAGCCTGT CTTTGTCAC CTGATAAGAA CTCAATCGGT	3600
GTATTCAAGT GTTCTCAAG ACCATTTCCT ACTTTTCAA TGGTTGCCG AAATTCATCC	3660
TTATAGCTAG TCAAGCGTCG TGGTAACAAT CCACGCTTTT CACCACGAAA CTTGGCGATT	3720
AAAAGATTTT CAGCGACCGT CATACGGGA GCTGTCCCA TCTTTGGATC TTGGAAGACA	3780
CGAGACAGGT ACTTGGCAGC CTTCTCGGT GAAAACTTAG TGAGATCTTC ACCTAAAATA	3840
CGGATAGTTC CACTAGTTAG TGATAAGGTC CCTGCTATAG TGTAAAGAG AGTTGATTTT	3900
CCAGCACCAT TTCCGCCAA AATCGTGATA AAGTCCGTT CAAAAATTC TAAGGAAACA	3960
TCATTTAAAA TAATCTTTT TTCATCAAAG CCATTTTAA CGATTTTGGT TGCATTTTTT	4020
AATCTACAA TTGCTGTCAT TTGCTTAACT TGGCTCCTTT CAAGATTGTT TGCTTAAATG	4080
TTGGAATCAT GAGGCAGACT GCTAAATCA AGGCACTGTA TAAACGAAG TAACTGTAT	4140
TAAAGCCAAG TGCGATAACT GCCCACACTA AAAATTGATA AGCGATAGAA CCTACAACGA	4200
TAGTAACCAA ACGCTCTGCC AAGCTCAAAC TCTTGAAAAT AACTTCTCCA ATAATCAAAC	4260
TTGCAAGCCC CACAACGATA ACCCCGATCC CFCGAGACAC ATCGGCATAA CCTTCTTGCT	4320
GAGCAATGAG GGCACCTGCA AGGGCAATCA CACCATTTGA TAAGACCAAG CCCATGAGCT	4380
CCATGCGTCC AGTATGAATC CCGAACTTC TAGCCATATC AGGATTATCC CCTGTAGCAA	4440
TATAGGCTTG TCCGAGTTA GTGTCCAAGA AAAAGAGCAT GAGAGCAATA ACAATACTCA	4500
CAAAGATGAG ACCTGTCAAG AGTTGATTCA AATCCGAATC AAAAGGCAAA ACATCCTGAA	4560
TTTGCTTGGT TCCAAGCAGG CCTAAATTCG CACGTCCCAT AATCAAGAGC ATGATTGAGT	4620
GACAAGAAGT CATCACAAA ATCCCTGAGA GCAAGGTTGG GATCTTCCCT TTTGTATAAA	4680
GAAGGCCTGC TGCCATTCCA GCCAAACAAC CTGCTCCTAC AGCAACAAGT GTCGCTAAAA	4740
ATGGGTTTAC GCCTTTGGTT ATCAAAGTGA CAGCAACAGC TCCCCAAGA GGGAAGGAAC	4800
CTTCTGTCGT CATATCTGGA AAGTTTAAAA TCCTAAATGT CATAAAGATT CCCAGACCTA	4860
GAATAGCCCA GACAAATCCT TGAGAAATAA TGAAACAAT CATATTTTAT TTAATCCTTT	4920

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CTATATTCAT CTTTTTAAAA AATGGGAAGA GTCTCCTCCT CCCTACCTTA TTTATTCGAT	4980
GACTTGTCCCT GCTTCTTTGA GAACAGACTC AGGAATAGTA ATACCTAGTT CTGTGTCTAT	5040
TTTTTTATTG ATGACTGACT TACCAGTTGA AAAGACATTG ACTGGGGTAT CGGCTGGTTT	5100
TGCACCTTTC AAGACTTGCA CAATCATTTT ACCTGTTGCC ACACCAAGGT CATGTTGGTC	5160
AATTACAACCT GATGCCAAAC CACCTACTTC TACCATAGCT GTCGCACTGG GATAAATTGG	5220
TTTCTTAGAA CTTTGATTGC TAGAGACAAC CGTTGGAAAT CCTGATGCAA TGGTGTATC	5280
AATTGGAACC CAAATAGCAT CTACCTTGCT AGTCATAACA GTGACAGTTG AGGCAATTTT	5340
ATTTGTTGAA GGAAGTGCAA ATGTTTCCAC TGTCAGACCT GCCTTTTCAG CATAAGCCTT	5400
AAATTC	5406

(2) INFORMATION FOR SEQ ID NO: 167:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9711 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 167:

CAGCTTGCTC TTACTATTAT AGCAGATGTT ATAGCTGGAA TTATCTTGTA TTTCGTCTGC	60
AAATGGCTAG ATGGTAAGAA GTAGACCGAA TGACTAGCCT ATAAACACCC GTTAAATCGC	120
TAAGATACGT CAAAAAGCC CTTAACTATG GCACTAGTTA GGGGCTTTGG TGTCTAATG	180
AACCTTATAC ACTAACTACA TTCTAGCATA TAAGCCCAGA TATTTCAAGA GTTTTATTTA	240
TTGTTTAAAG TTCTGAAAGG TCTATAATGA AGTTAGCCAT CTAGTATCAA AAAACCGACT	300
AGCTCTTATG AACTAGTCGA TTTCTCATCA ATGCGCCAAC ATTTCTTGGG CGATTTCTTG	360
GCCAGATAGG TTATCTGGGT AGTAGGTTGG CCAGTTGTCC ATTTCTTCAA AGAGGGCTTC	420
TTGGCTTG TG CCTCCAAAGA AGATATGGAA ATGTTCTGCC TTAAGTGGG CAACATTGTG	480
GTCACTAAAC TGAACATACT TGAATTGTCC AGCGTCAGCA TCTGTGGCTT CAAAGAGGAA	540
ACGCACGCCA CGATTGCCTT TCTTGTAAGT CAAAATTTTC TTACCGACAT ACTTGTAAGT	600
GTATTTCTTG CTTTGTCCAC CTTGAACAAA TTCCATAGTA TTATCAGTAA TGTTAATCTT	660
AGTCACATCT GTATGATAGC CTTTGTGATA GTAAGCCTTG TACTCAGCCT GGGTCATCTT	720
ACCAGTCAAC TTAGCCTTGT AGTCAAAGAC TTGGTCAAAC GTGCCGTCTT CAAGGAAAGG	780
ATAAACTGAT TGCCAGTTAC CTGCATAGTC ACTCAAGGTG CGGTCCTTGA CAGCTGCATC	840
CTCGAAGTAA CCATTTTGA CTGTCTTGGT ATCCTCTGCC TTTTCAGTT CAATTGCTGG	900

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GCCTTCTTGG TCTGTTGTTT GTTTCAAAGC CTGAGGTTT TTCTCCATCA CGGAAATGTA	960
GTTTCTCCCA GCCTTGGTGT CCTCTTCTGT CAGACTTTCT AAAGGATTGA GGACATCAGT	1020
TTTGACACCT GCTTCTTTTG AAAGTGTGTT AGCAAGGGCT TGTGAGGCAT TTCTTCAAAA	1080
TAGATATAGG CGATTTTATT TTCTTTGACA TACTCTGTCA ATTCTGCCAA GCGAGCAGCT	1140
GATGGCTCTG CATCTGGAGA AAGTCCTGAG ATTGCGACTT GTTTGAGTCC ATAGTCCAAG	1200
GCAAGATAGT TAAAGGCTGC GTGTTGAGTC ACAAAGCTCT TTTGTTTTCG TTGAGACAAA	1260
CCTTCTGCGT AAGCCTTATC CAAGGCTTGC AATTTTTCGA TATAGGCAGC TGCATTCTTC	1320
TCAAAGGTCT CTTTTTTATC AGGATAATCT GCTGACAAGC TGTCGCGGAT GTGCTCTACT	1380
AGTTTAATGG CACGAACTGG TGATAACCAA ACATGGGGGT CAAACTCATG GTGATGACCT	1440
TCTTCTCCAT GGTTCATGGT TCCCTCTTCT TCCTCGCCAC CTGGCAAGAG CAACATATCG	1500
CCTGTCTGCC TTGATGGTTT CACTTTTTTC TTATCCAAGG TATCTAGCAA TTTAGGTACC	1560
CATGTTTCCA TGTTTTTATT TTCATAAAGC AAGGTATCTG CATCTTGGAT TTTGGCAACT	1620
GCCTTGGCAG ATGGTTCGTA TTCATGAGGT TCTGTCCCAG CACCGATTAG GAGTTCTACA	1680
TTAGCCGTAT CTCCTGCGAC TTGCTTGGTA AATTCATAGA CAGGGTAAAA GGTGTCTACG	1740
ATATGAGTT TACCATCTGC CTGTTTTTGA TTGGAACAAG CCACTAAAAA CAAGGCACAT	1800
AGACTGGCTA GTAATAAGCT AATTTTTTTC ACGTTCGTCT CCTATTTGAT AAAACGTCTT	1860
ACTAAACTGA TTAGTATAAA GACAGTTACA AAAATAATGG TAATACTTGC ACTTGCAGGT	1920
GTTTCTGCAT AGTAGGAAAT GTAAAGTCTT GCTACCATTC CCAAAAAGCC AATCGCACTG	1980
GCAAGCAGCA TAACCGATTT AAAGTTTTTC CCCAGACGCA GGGCAATACT AGCTGGCAAG	2040
ACCATAATGG TCGATACCAG AAGAGCTCCT GCTGCAGGAA TCATAAGGGC AATAGCCACC	2100
CCTGTACCA TGTTAAAAAG AATGGACATG GTACGAACTG GCAAGCCATC CACAAAGGCC	2160
GTATCTTCGT CAAAAGTTAA GATATACATA GGACGAAGAA AGAGAAAGGT CAAAATCAAA	2220
ACAACCGCCG CAATGACAAA GAGGGAATG ACCTGTTCTT CACTGATAGT CACGATCGAA	2280
CCAAAGAGAT ATTGGTCCAA ACTCATTGAA CTCGAGCTTT TACCCTTGCT CATGACAATC	2340
AGAGAAACAG CCAGACCTGT TGACATGAGG ATAGCTGTCC CGATTTCCAT AAAGCTCTTG	2400
TAAACCGTAC GGAGATACTC CAGAAAGACC GCCGCAATCA AGACAATGGC AATAGTAGAA	2460
ACAGTTGGAG AAATCCCCAA AACCAGACCA AAGGCTACAC CTGAAAAGTGA GACGTGGCTA	2520
AGGGTATCAC TCATCAAACT CTGACGACGC AAGATGAGGA AGGTTCCCAA TACCGGTGAG	2580
AAAAGACTCA TAGCAATAAC CGCCAAAAAG GCGCGTTGTA TAAAGTCGTA AGATAATAAA	2640

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CTAAGCATGG CCCACCTCCT GGCCATTCTC ATGAACATTG AAACAACGCC ATGGCGAGTC	2700
TTGGTTACGG ACTAGATGAA TATTGCGATC CGCATAATCC TTAACCTCTT CAGGGTCATG	2760
GGTAATCATC AAAACAGCCT TGCCATGATG ATGGGCGCTG TGGTGCATGA GTTCGTAAAA	2820
TTCAATTTTA CTTCTGTCAT CCATCCCCGT TGTGCGCTCG TCTAGGATAA ACACATCAGG	2880
GTCAGAAGCA AACATACGCG CAATTACCGC TCGCTGCTTT TGTCCCCCAG ATAGAGACCC	2940
CAAGCGTTTG TCTCGATGTT CCCACATGCC AACTGAGTCC AGACTAGCCT TGATATGCTC	3000
CTCATCATGA GCATTCAAAC GACGGAACCA GCCTTTTCTC GGATAGCGAC CCGACTTGAC	3060
AAATTCATAG ACCGTAATTG GAAAACCAGC ATTAAAACTG GCAATTGTGTT GAGGAAGATA	3120
GGCTATTCTC AATTTCCTAC CTTGCGTATT TGTCTTTGAA ATAGCCACCT TTCCAATGCG	3180
TGGTTGCAGA ATTCCAAGAC TAGCCTTGAT GAGCGTCGTC TTAGCCGCTC CATTTCCTCC	3240
AGTCAAGSTA ACAAATCCC CACTATCAAC ACAATAATTG ATATGTTCAA GAACAGGCTC	3300
CTTATCATAA TAGAAGGACA AATCCTCTAC CGTAATATAT CTCATTATTT GATTTCTCCT	3360
ACTAAAGCAG TCAAAAACCG CTGAATCACT TTTTGTTCAT TTGGAGTAAA CTGAGTCGCC	3420
ACTTGTTCAT AGGTTAAAAG TGTATGCTCA TGGTGATGGT GGTGCTCCTC AGCGATTGGA	3480
CGAGCCAAGT CAGTCAACTG ATAAAAATC ACACGCGCAT CTTTAGAATC TTTAGATGTT	3540
TCCAACATCC CTTCTTGAC CAAAGACTTA ATGGCCTTGG TAACTGCCGC CTGACTGACA	3600
TTGAGACGAC GGGCCAATTC TGAATTTGTT AAAGATTCCCT CTGACAAGAG CATAAGGATA	3660
TGCTCCTGAG TATTGGTCAG GGCCACCTCG CTAGTGCAAT GACCTATTAG GATTTTCATGC	3720
TGATTTTCCG CCTGCAAAAT CACCTCATTC AAAAAAGCAT TGATATCCTT TGCTAGCTGT	3780
CTCATATCTG ACTCCTTTCC TTTTAGACTT CTCTTTTTTA AGAGAAAAAT ACTATCTTTT	3840
GACATTTTGT TTACCAGTTA ATTATATCAC AAGCAAAAAA AGAGTCAAGA AAAAACGTGA	3900
AAACTAGTTT CATTCCTGAA CTCTTCTATA TTATATTATC TATTGAAATT CTTTGACATC	3960
TCCATCATAA GTCGCCCAAT CTTTGCTGAA AAAGCGCTCA TTCAGATGGT AAGTCGGAGC	4020
TGGTGTGGGA TTGGATAGGA AAGGATCAAC TGCCTTGTCA AAAGCCAACC AACCCAACCA	4080
ACCAAGGTGA ATGGTGTCTT TCATAAAGAA AGGCTCCCCG CCGTCCTTAG AAAAATCTGC	4140
TATATTGGTA AAACCTTGAC TTTCTAACTG GTAGCGAATC TTCTGCACCG TTTGTTGGTA	4200
CATATCCTCT CGTAGACCAG CATAGTTCAT CCATTTTTTA TTAACAGGTG GAATGATAAA	4260
AATCGGTTT ACCTTAGATT TAGAAAACTG TGTAAAAACC AACTGCAAGT CATTATACTC	4320
TGGCGACTTG AGATAGGTAA AGCTTTTCTG AGAATCCTTT AATTTCTTCA AATCCTTCTT	4380
GATCTGCTCA TTATAGAAAT AATTTTCCAT TCCCATCTCA TTATTGGAAG TATTTTTTTC	4440

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AGCATCTGCT TTGACAACAT CTTCTATTGC CTGATAAGAA AACTGGTCTG GCAAGATTTT	4500
TAAATACTTA GCTACATGCT TATCGTAGTT AACATAGCCT CTAACCGAAA ACTGACCAAA	4560
AAAGGAAGCT TGGCGTTCAT TAAAACGAGC CAATAATTCA ATCATTTTCAT TGTCTGCTGT	4620
CGACAATTCT TCTTTACTTG CCAACTTCTG AACCAGGTCC TTCATAGCTA CGTTTGGGAA	4680
CTGTTGCACT AAGCGAGTCG CTGCATATTG ACTAGCCTGA TCCCCAGATT GATGTTTCAG	4740
AAAACCTAGTC AACTGGTCTC CATTAAAATA CTGCTGGAAG GCTGCTGGAT CATAGCCATT	4800
TTTACTGAAC CACTGAGGTG AGATAACATA CACAACCTGT TTATTCTCCA GCTGTGGTAA	4860
CATCTGTTGC ATTCCAAAAT ATTGGTTAAG CGATGCAGCT CCCCCCTGTC CTAAAAGATA	4920
AGGACGGTAG GAACGATTGT ATTTCTCAGC TAATACCGCA GGATGAGCAC CGTCAAAACG	4980
AAGCCATTCA CTAGAGCCAA AGAAGGGAAC AAAACGCACA TTTGGATCAG ATAGTGCTCT	5040
GACTTTTTGA CTTGCTCCTT TAAACTATC GATAGTAGTA GCCACTGCTG AACGCTTTTC	5100
AGCTCCTAGA TTATGATGCA TCTCAGTAGG ATAAAAGAAA ATGAGCAGAA AAACCAACAA	5160
ACCAGCGATC AAGACCGGTC CGAAGATCAT CCATAAGCGT TTAAGCATTT TGTAGCTCCA	5220
CAATACCAGC TATGATTTTA TTAGCTGTAT TCCAGTCGTC ACGACCAAAC TCTGTTACAG	5280
GGACACGAAT GTCAAAACGG TTCTCAATCT CCACAATCAA CTCAACCGTT CCCATACTAT	5340
CCAAGACACC TGCATCAAAA AGATCTTCAT CCATCATGTC AGAAACATCT TCCATAAACA	5400
ACTCATCAAT AATTTCAATA ACTTCTGATT TGATATCCAT ATTTTATTTT CTTTATTTT	5460
TTAAACCATA GATTATTCAA GAATCCAGAA AAGATTAAGA ATGACAACAT GACAACATGG	5520
AAAGTGACAA CCATGCCAAG CAACTGAATC CAGCGATTCT CAGGTAGGGC AGCCTTCCCT	5580
GCTTTTTTCC GTTCCTTATT GAGCGTTTTT TTCTTGCGAA CCCAGGCATC ATTGATGACC	5640
AAGCCTAGTC CATGAAAGAG TCCATAGGCG ATATAGTACC AGGTACACAC ATGCCAAAAT	5700
CCCATAATCA GCATATTTAC AATGTAGGCC ATGCTTGAGG TTACATTACG ATTTTAAAG	5760
ACTTCTTTTC TGGTTAACAC CATCACCATT CGCATAAAGA CAAAGTCACG GAACCAGAAG	5820
GACAGACTCA TATGCCAGCG ATTCCAAAAC TCCTTTAAAT CCCTTGATAA AAAGGGCTTG	5880
TTAAAGTTGA TAGGGCTACG GATTCCTATC AAGTTTGAGA TGGCCAAAGC AAACATAGAA	5940
TAACCTGCAA AGTCAAAGAA GAGTTCCAGA CAAAAGTAT ACATAACTGC CAAGGCATAG	6000
AGATTAAAGA AGCCACCTGA CTGCAAGGCT AAATTCTTCA GAGGAGGTAG TAAGGTCTCT	6060
CCTAAAACAT GAGCTAGGAT AAACCTTATC AAAAAGCCCC ACATGATATA GCGACAGAT	6120
TCATCCAGCA TATCCATCAA CTCATCTCGC TCAGGAATAG CCTGATAATT TTCATTAAAT	6180

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CGCTTAAAGC GATCGATTGG ACCACTCGAG AAAGTTGGCA TGAAGAGAAG GAAACGGAGG	6240
AATTTCCAGA GGGTAAAATC CTTAATCACT CCATCTCTCA GCTCGATGAC AATTCCAACC	6300
GAACGAAAGG TCAGGTAAGA AATTCCCAAG AACCCAAGCA AAGACTGCGT TCCATTGATA	6360
GCTGGTTGCA CCTTGACAAA GATAATCGGA AGTAGGGACA GAAAACAAAC TAAGTAGAAG	6420
ACCCACTTGC CATCCTTGCT TTTTCGATAA TGCTTGTAGA AAAGCAGGAG CAATATTTCC	6480
CAGCAAAGGT AAATACCCAA GGCAGCTAGT TGATTGGTCT TTCCACCCAC CAACATGGTG	6540
ACAATAAAGA AGAGACTTAC CAACACTTCA TACCAGGCAA AGCGTTTCTT GAAAAAGAGA	6600
CCTATAAAGA TGGGCAAGGT TGCAGCAATC ACATAAACAA AATACTGAGG ATTGCCATAT	6660
GGCTCTAAAT GAGGAAGCTG TTGAAAAAC TCCATCATCT CTTATTCACC TCGTTAATCA	6720
ATCCTTTGAT GTCAATCTTT CCATTGGAG TTAGTGGCAA ACTGTCTCGG TAAAGGAATT	6780
TAGATGGCAT CATATAGGAC ATCATGATGT CTGTCAGGTC TTCCTTGATG GCCTTGGTAA	6840
TATCGATATC TCCTCAAAC TGCTCACGAA CACCGTCTTT TAAGATGACA TAAGCCAATA	6900
GATTTTGTAC CTTGTGGTCC TTGTTATAGC GCGGTACTGC GACAGCAGAT TCGATAAAGC	6960
GAGACTTGTT GAGGTTTGA GAGACATCTT CTAACCAAT GCGGTAACCG TTAAACTTAA	7020
TCTGGAAGTC CATGCGTCCG CCGTAGAGAA GCAAGCCCTC ATCTGTCATG GTTCCCACAT	7080
CGCTGTGTG ATAGGCTGGC AGATCTTCAA ACTCAAAGAA GGCTTCTGCT GTTTTTCAG	7140
GATTGTTCAT ATAACCTTTT GAAACAGCTG GCCCAGAAAC AATGATTTCT CCCTGCTCAC	7200
CATTTGGCAG TTTATTTCTT TCCTCGTCAA TGATAAAGGT TGGAGAATCA GCCTTGGTAT	7260
AGCCGATTGG TAGGCGTTTG AGAGTCGCTA ACATCTCGTC TGTACGGCA ACTGCTGACA	7320
GAGCTACTGT CGCTTCTGTT GGGCCGTAAG CATTGATGAT ACGGGCATTG GGGAAACGCT	7380
CGCGCAGTTT TTGAGCTGTT TTGACCGTCA ATTCTTCACC ATCAAAGTAG AAATGCGTGA	7440
TTCCAGGCAT TTTCTCACTG TTGAAGTATT CAGACAACAT GGCCATATCT GCAAAGGATG	7500
GTGTTGATGT CCAGATAGCG ATTGGCAATG AAAAGATAGC CGCAAAGAGT TGCTTAAAT	7560
CCTGAGTGAT GACTGAAGGA AGAGTGAAAA GCGTACCACC AAGTGCCAAG GTCGGTGCCC	7620
AATACATGAC AGACAAGTCA AAAGAATAAG GTGGCTGTGC CAGCATTTGC GGACGACTCG	7680
GTGTCGCAAA TTCCTTATCC GTAATCATCC AGTTTGTAAG GCTGAGGAGA TTATCATGTG	7740
AAATCTGCAC TCCCTTAGGC TTACCAGTCG TACCAGAAGT AAAGATAATG TAGTAATTAT	7800
CATCTCCCTT GACTGGATGC GTGATTTTAT AGTTATTTCC TTGGGCAAAG GCTTCTTGAA	7860
CCTGAGCTAG ATTTATCATT GGTGTAGAAA CCTGCTCCAA GGGAAAGGCT GAAATGGCAA	7920
TAATCAAGCT TGGCTCTGCT ACTTCTAAAA TAGCTGAAAC TCGCTCCAAG GCCGAATGGC	7980

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TATCAATTGG AATGTAGGCA TGACCTGACT TAGTCAGCGC TACAAAGGTT GCCAACATTT	8040
CATATTCTTG GCCACCAAAA ACAACCACAG GAGACTTCTC AGGCAAGCCT AGTTGGTCAA	8100
TGACTGCAGC CAAACTATCC GAATCAGCCT TAAATCGCC ATAAGTGTGT TCCTGCCCCA	8160
AAACATTATA GACAGGATAG CTAGGCTGTG TCTGAGCAAA ATGCTCAATG GTTTCATCA	8220
TATCTGCTAT TGGTTTATTT GACACAATAG GGATTCTCCT TCAAGTTAAA ATTCATTATA	8280
GATAAAGCTT CCTTGACCCT GACCAAGATA GCTAAAGAAG TAAAGCAGCC CTAGAAAGAT	8340
AAGAAAATAC AAGGCTGTCC GACCAAGAAA GAGGTACAAT TCTTTTCTCT GTTTCATCAA	8400
GAAAAACCAT TCATTTCTGT AATTTTTTCG TAAATAAGA GTGATTCTTA CTAGCTTATT	8460
TTTCTACCAT TGTACCACTT TATATAGTAT CTTTTCATTT GTTTACCGTA TGTTCCTCAT	8520
AGATTTCTAGC TTATTTTAAG GATTATACAG TTTTCTCTATG TATATTTTCA AATAGAGTGA	8580
TCCTGCTTCA AAATCCATT TCAGGAGACA ATGAAGTAAA TCTTCCCATATA ATAAACACA	8640
CAATATCAAG TTTTTCATAC ACCTGATACT ATGCGCTTTT CTGATTTTAA AAGACTTTTT	8700
AACCACTCTC TCATTTAAAA TAATCTCGTC TGATATAAAT TAAATAGCT TCTATCATCA	8760
GACAAATGGC TGATAGCCAA AAATGATGTC TAATACCAAA ACTCTCAGTA ATATAGCTCA	8820
TTAGCAAAAC AAATACTGAA AATGCTAATG TAGAAATCAC TTCAAGAACG GAATAGACAT	8880
TAATAAATG ATTTTCTCT ACTGTTCTCT GAAGAAATAC ACTTTCAGGA ACTTCTTTTA	8940
GTGCGATAA CATACCAACT AAAGCTGAAA ATAATAAAA CATCTGTGCG TTTGGAAAAT	9000
ATAGAATAGT CAGTGTCCTT ATTTCCATAG CTACAAGAGG AAAAAGAATA CTTTCCCCC	9060
AAATCATTTCA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC TCATGAGCCA	9120
CTTTCTTCTT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG TTTTCTCTCG	9180
CTAGATTTC TCAAAAGGGC AGACTCCTCC CTTGGTGCGT CACACGATTT TTTCTCTCG	9240
ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATG AGGAACAGGA	9300
AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC GGAATAGGCA	9360
TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCTGTTT GAACACATTT TCCCACCACG	9420
TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC TCCAGCTAGA	9480
TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG AACTTCGTTT	9540
TTGATTAAGG TTGAACTATC CGTTTATCG CCAAAAAATC CTTCTTCAT CTCCTTGATG	9600
AAATTCTCGG CTTGACCACG TCCACGATAA AGCTGAAACT GGTCTTGGCT GTTCCACTCG	9660
TCATATTTGT AACGAGAGAA ATAACATCGT AGAACAAGTA TCCTTCTTTT C	9711

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(2) INFORMATION FOR SEQ ID NO: 168:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3025 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 168:

CCCCTTTGTC AAAACTGTAA AATTAAACGAC TCAACAATTC ATCTTTACAC CAATCTCAAT	60
GGAAAAACAAA AACAAATTGA CCTCTGTCAA AACTGCTATA AGATTATCAA AACAGATCCT	120
AACAATAGCC TCTTCAAAGG TATGACGGAT CTGAACAATC GTGACTTCGA TCCCTTTGGT	180
GATTTCCTCA ATGATCTAAA CAATTTTCTA CCTTCTAGCA ATACTCCTCC TATTCCCCCA	240
ACCCAATCAG GTGGAGGTTA CGGTGGAAAC GGCGGTTATG GTTCCCAAAA TCGTGGATCT	300
GCTCAAATTC CGCCACCTAG CCAAGAAAAA GGCCTGCTGG AAGAATTGTTG TATTAAATGTA	360
ACTGAAATTC CCCGTCGTGG AGACATTGAC CCCGTTATG GGCGCGACGA TGAGATTATC	420
CGTGTCATCG AGATTCTCAA TCGTAGAACC AAGAATAATC CTGTCCCTAT CGGTGAACCT	480
GGTGTCGGAA AAACGGCCGT TGTCTGAAGT CTAGCTCAGA AAATTGTCGA TGGCGATGTG	540
CCACATAAAC TCCAAGGTAA ACAAGTCATC CGTCTGGATG TGGTTAGCTT AGTTCAAGGA	600
ACGGGGATTC GAGGACAATT TGAAGAACGC ATGCAAAAAC TCATGGAAGA AATTCGCAAA	660
CGTGAAGACA TCATCCTCTT TATCGATGAA ATCCATGAAA TTGTTGGTGC TGGTTCTGCG	720
AGTGATGGTA ATATGGACGC AGGAAATATC CTCAAGCCAG CCCITGCTCG TGGAGAACTG	780
CAACTAGTCG GTGCTACTAC CCTCAATGAA TACCGTATCA TTGAAAAGGA TGCTGCCCTC	840
GAGCGTCGTA TGCAGCCTGT TAAAGTCGAT GAACCAACGG TGGACGAAAC AATCACTATT	900
CTCAAAGGGA TTCAAAGAA ATACGAAGAT TACCACCACG TTCAATATAC AGATGCTGCG	960
ATTGAAGCAG CTGCAACTCT TTCCAATCGC TACATCCAAG ATCGCTTCTT GCCTGACAAG	1020
GCCATTGACC TCCTAGATGA AGCTGGTTCT AAGATGAACT TGACCTTGAA TTTTGTGGAT	1080
CCTAAAGTAA TTGATCAGCG CTGTATTGAG GCTGAAAATC TCAAGTCTCA AGCTACACGA	1140
GAAGAAGATT TTGAGAAGGC GGCCTACTTC CGCGACCAGA TTGCCAAGTA TAAGGAAATG	1200
CAAAAGAAAA AGATCACAGA CCAGGATACT CCTAGCATCA GCGAGAAAAC TATTGAGCAC	1260
ATTATCGAGC AGAAAACCAA TATCCCTGTT GGTGATTGTA AAGAGAAAGA ACAATCTCAA	1320
CTCATCCATC TAGCCGAAGA TCTCAAGTCT CATGTTATTG GTCAAGATGA TGCAGTCGAT	1380
AAGATTGCCA AGGCTATTCG CCGTAATCGT GTCGGACTTG GTACCCCTAA CCGCCCAATC	1440

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GGAAGCTTCC TCTTCGTTGG GCCAACTGGT GTCGGTAAGA CAGAACTTTC CAAACAACTG	1500
GCTATCGAAC TTTTGGGTTTC TGCTGATAGT ATGATTCGCT TTGATATGAG TGAATACATG	1560
GAAAAACATA GTGTGGCTAA GTTGGTCGGC GCTCCTCCAG GTTATGTTGG CTATGATGAG	1620
GCTGGTCAAT TAACTGAAAA AGTTCGCCAC AATCCATATT CTCTCATCCT TCTCGATGAA	1680
GTGGAAAAAG CTCACCCAGA TGTATGCAC ATGTTTCTTC AAGTCTTGA CGATGGTCGT	1740
TTGACAGACG GGCAAGGACG CACCGTTAGC TTCAAGGATG CCATCATTAT CATGACCTCA	1800
AATGCAGGTA CAGGAAAGAC CGAAGCTAGC GTTGGATTTC GTGCTGCTAG AGAAGGACGT	1860
ACCAATTTCTG TCCTCGGTGA ACTCGGTAAC TTCTTTAGCC CAGAGTTTAT GAACCGTTTT	1920
GATGGCATTG TCGAATTTAA GGCTCTCAGC AAGGATAACC TCCTTCAGAT TGTCGAGCTC	1980
ATGCTAGCAG ATGTTAACAA GCGCCTCTCT AGCAACAACA TTCGTTTGA TGTAACTGAT	2040
AAGGTCAAGG AAAAGTTGGT TGACCTAGGT TATGATCCAA AAATGGGAGC ACGCCCACTT	2100
CGTCGGAATA TTCAAGACTA TATTGAGGAC ACAATCACTG ACTACTACCT TGAAAAATCCA	2160
AGCGAAAAAG ATCTCAAAGC AGTTATGACT AGCAAGGGAA ACATTCAGAT TAAATCTGCC	2220
AAAAAAGCTG AAGTTAAAAG TTCTGAAAAA GAAAAATAAA TCCTATAAAA AAGGAGTAGA	2280
AAATGAAATT TTTCTGCTTC TTTTCTTACT AAAATAACTG TAATTTCTTG ACAGCTTGCC	2340
CTTTGTCCAT TATGATATAT AGTAGACTGA ATCTGAAATA GTACGAAACA ATTGCTAAAA	2400
CATTATAGA AATTAAATTT ACTTTCCCAA TCGATTTGTT CTCATCTTAT TTCAATCTGC	2460
TATAGTCAAT TGAACAAGA ACAAGACAAA AGAGCCTCAT AAAAGSTATT GCAACTTGGT	2520
AATACCTTTT TGAGGTGCTT TTTGATATGA GCCCATGTTT TCTCAATAGG ATTGTACTCA	2580
GGTGAGTAGG GAGGAAGAGG TAAAAGTTTA TACCCAAACT CTTACACAA GAGTTCTAAC	2640
TTACCCATTC TATGGAATCT TGCATTATCC ATAATAATAA CCGATGGTGT GGTAAATGTT	2700
GGTAAGAGAA ACTTCTGAAA CCAAGCTTCA AAAAAGTCGC TCGTCATCGT CTCTTCGTAA	2760
GTCATTGGAG CGATTAACTC ACCATTCAAT TGTTAGACCT GCAACCAAAG AAATTCTCTG	2820
ATATCTTCTT CCAGATACTT TGCCTCTTCT TAACTGACCT TTTAATGAGC GACCATATTC	2880
TCGATAAAAA TAAGTATCGA ATCCTGTTTC GTCAATCTAA ACAGGTGCTA GGTGCTTTAA	2940
ACTATTAATA TTCTTAAGAA ATAAGGCTAC TTTTCTGCGG TCTTGTTCAT AGTAGGTGTA	3000
GTTCTTTTTT TTTTCGAGTG TAGCC	3025

(2) INFORMATION FOR SEQ ID NO: 169:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4104 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 169:

TTTAAGGTTT TAAAAAAGT TTTCGAAAGG TTTCTTCTTT ATTTTTTAAG GGAGAGATAA	60
CGTTGATATC TAAATCGTGG TCAAAGCCGG CAATTTTTC TTTAGATGTG TATTGGTGAA	120
TATCATAATC TAAATCAGTT TTAGGACTGC TCTCCAAAA TCCTGAGTCT GAGCCGTAGA	180
CGGAATCCAA ACAGAGGTAA ACTTGCCTGT ATCAATACTG TGTTCCTCCA TGAAGTAGAC	240
ACCAACGTAG ATGCCGATGT TTTTAGCACC CAGTGATGCT AGTTTGTCTC GAAAGTTTTC	300
GACACCTTCG TTCATATTAG ACATGGTTTT GTCTTCCACG TCAAGCCAAT AGTAACTAGG	360
GCTGTAAGGA GAGGCAGCAT TGTAGAAAAC TTCGGCAGCC TTTTCCATTT CTTGGACACT	420
TTTTCCAGCT ACATAAGCGT AGACAGCAAC TGGGACATTC CGCTTTTGAA GTTCAGTGAT	480
ATGACTCTTA TAGGCCTTGT CTATTCCATT GATAAATGAA GCATCATTTT CTTTGTCTGT	540
TTGAGCACCA CTGTGAACAC GAACAATAGC ACCTGAAATA TTTGTGAGA GGGCATCGTA	600
GTTGATTTC TCAGGACGCT GCCAGCCAGA GAGGTCAATA ATCGGTTTGT CTAAGTGTTT	660
CAAAGCCTGT GCTTCAATCT GTGCTATATT GGATTTTGTT TTAAACGATT GGCTGTCATT	720
AAGTGGCGCA TTGATGATTA AAATGAACAT CATAATCCCA AAAAACTAA ATAAAATAAG	780
TGGATGAATT TGTTTTCTCA TATCTTATAA TTCTACCCTA AAAATCAAAA AAAATCAAAA	840
AAATGGGTTA AGGAAGAGAC TTTAGAGCAT TTTTTCATTC AAGAGTCCGG AATGATTTGA	900
AATATGGTAT AATAAAGGG AATTCTTACA GAAAAGAGAA GATTATGTCA AATTTTGCCA	960
TTATTTTAGC AGCGGGTAAA GGGACTCGCA TGAATCTGA TTTGCCAAAA GTTTGCACA	1020
AGGTTGCCGG TATTCTATG TTGGAACATG TTTCCGTAG TGTGGGAGCT ATCCAACCTG	1080
AAAAGACAGT AACAGTTGTA GGACACAAGG CAGAATTGGT TGAGGAGGTC TTGGCTGGAC	1140
AGACAGAATT TGTGACTCAA TCTGAACAGT TGGGAACCTG TCATGCAGTT ATGATGACAG	1200
AGCCTATCTT AGAAGGTTTG TCAGGACACA CCTTGGTCAT TGCAGGAGAT ACTCCTTTAA	1260
TCACTGGTGA AAGCTTGAAA AACTTGATTG ATTTCCATAT CAATCATAAA AATGTGCGCA	1320
CTATCTTGAC TGCTGAAACG GATAATCCTT TTGGTTATGG ACGAATTGTT CGTAATGACA	1380
ATGCTGAGGT TCTTCGTATT GTTGAAGACA AGGATGCTAC AGATTTTGAA AAGCAAATCA	1440
AGGAAATCAA CACTGGAACA TACGTCTTTG ACAACGAGCG TTTGTTTGAG GCTTTGAAAA	1500
ATATCAATAC CAATAACGCT CAAGGCGAAT ACTATATTAC AGACGTCATT GGTATTTTCC	1560

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GTGAACTGG TGAAAAAGTT GCGCCTTATA CTTTGAAAGA TTTTGATGAA AGTCTTGGGG	1620
TAAATGACCG TGTGGCGCTT GCGACAGCTG AGTCAGTTAT GCGTCGTCCG ATCAATCATA	1680
AACACATGGT CAACGGTGTT AGCTTTGTCA ATCCAGAAGC AACTTATATC GATATTGATG	1740
TTGAGATTGC TTCGGAAGTT CAAATCGAAG CCAATGTTAC CTTGAAAGGG CAAACGAAAA	1800
TTGGTGCTGA GACTGTTTTG ACAACCGTA CTTATGTAGT GGACAGCACT ATCGGAGCAG	1860
GAGCGGTCAT TACCAATTCT ATGATTGAGG AAAGTAGTGT TGCAGACGGT GTGATAGTCG	1920
GTCTTATGC TCACATTCGT CCAAATTCAA GTCTGGGTGC CCAAGTTCAT ATTGGTAACT	1980
TTGTGAGGT GAAAGGATCT TCAATCGGTG AGAATACCAA GGCTGGTCAT TTGACTTATA	2040
TCGGAACTG TGAAGTGGA AGCAACGTTA ATTTGGGTGC TGGAACTATT ACAGTCAACT	2100
ATGACGGCAA AAACAAATAC AAGACAGTCA TTGGAAACAA TGTCTTTGTT GGTTCAAATT	2160
CAACCATTAT TGCACCAGTA GAACCTGGTG ACAATTCCTT CGTTGGTGCT GGTTCAACTA	2220
TTACTAAAGA CGTGCCAGCA GATGCTATTG CTATTGGTCG CGGTCGTGAG ATCAATAAAG	2280
ACGAATATGC AACACGTCTT CCTCATCATC CTAAGAACCA GTAGGAGCCT ATCATGGAGT	2340
TTGAAGAAAA AACGCTTAGC CGAAAAGAAA TCTATCAAGG ACCAATATTT AAAGTGGTCC	2400
AAGATCAGGT TGAATTACCA GAAGGCAAGG GAACTGCCCA ACGGGATTG ATTTTCCACA	2460
ATGGGGCTGT CTGTGTTTTA GCAGTAACGG ATGAACAAAA ACTTATCTTG GTCAAGCAGT	2520
ACCGCAAAGC TATCGAGGCT GTCTCTTACG AAATTCAGC CGGAAAATTG GAAGTAGGAG	2580
AAAACACAGC CCCTGTGGCA GCTGCCCTTC GTGAATTAGA GGAAGAAACA GCCTATACAG	2640
GGAAATTAGA ACTCTTGAC GATTTTTATT CAGCTATTGG CTTTTGTAAT GAGAAGTTAA	2700
AACTATATTT AGCAAGCGAT TTGACAAAAG TGAAAAATCC GCGTCCGCAG GATGAGGATG	2760
AAACCTTGGA AGTCCTTGAA GTGAGCTTAG AAGAAGCGAA AGAATTAATC CAATCAGGTC	2820
ATATCTGTGA TGCCAAGACA ATTATGGCTG TTCAGTATTG GGAGTTGCAG AAAAAATAGA	2880
GGAGGTCAGT ATGGGTAAAT CTTTATTAAC GGATGAAATG ATTGAAAGAG CTAATAGAGG	2940
CGAAAAAATT TCAGGTCTC CTTTGCTAGA TGATAATGAG GAAACTAAGA TTTTACCAAC	3000
CTCTCTTCC CGTTTTGGTT ATGCCAATCC TAAGGATCAT GGTTTTAGCC AGGAAACCTT	3060
GAAGATTGAG GTCGAACCAT CTATTCATAA AAGCCGTCGT ATTGAAAATA CCAAGAGAAA	3120
TGTCTTCAAT TCTAAGTTGA ATAAAATCTT ATTTGCGGTC ATCTTCTCT TGATTTTGCT	3180
TGTTTTAGCA ATGAACTTT TGTAATAGAA AAGGAATTGA AATGAAAATA GGAATTATTG	3240
CTGCTATGCC AGAAGAAGT GCTTATCTGG TCCAGCATTT AGATAATGCC CAGGAGCAAG	3300

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TTGTTTTTGG GAATACCTAT CATAACAGGAA CCATTGCTTC TCATGAAGTC GTTCTTGTAG	3360
AAAGTGGAAAT TGGTAAGGTC ATGTCTGCTA TGAGTGTGGC GATTTTGGCT GATCATTTCC	3420
AGGTGGATGC CCTTATTAAT ACGGGTTCAG CTGGGGCAGT AGCAGAAGGT ATCGCTGTTG	3480
GGGATGTCGT GATTGCTGAC AAATTAGCCT ATCATGACGT GGATGTCACA GCTTTTGGCT	3540
ATGCTTATGG ACAAATGGCG CAACAACCGC TTTATTTTGA ATCAGACAAA ACCTTTGTTG	3600
CTCAAATCCA AAAGAGTTTA TCTCAATTGG ACCAAAACCTG GCATCTTGGT TTGATTGCTA	3660
CAGGAGATAG TTTTGTGCA GGAAATGACA AGATAGAAGC GATTAAAGTCC CATTTCCAG	3720
AAGTTTTAGC CGTGGAGATG GAGGGGGCAG CTATTGCTCA AGCAGCGCAT GCCCTCAATC	3780
TCCCAGTCTT AGTCATCCGA GCTATGAGTG ACAATGCCAA CCATGAAGCA AACATCTTTT	3840
TTGATGAGTT TATTATCGAA GCTGGACGTC GCTCTGCCCA AGTCTTGTG ACCTTTTGA	3900
AGGCTTTAGA TTAAGCGGAA ATTTGACAGT TTTCTAGCT TATGATAAGA TTAAAGTAAA	3960
GAAAAGCTAG AAAACGTTTC AGAGGATATT ATGAGTATTG AAATGACCGT CAGTGAGATT	4020
GCAGAGGTCT TAGGATTATC TCGCCAAGCA ATCAATAACC GTGTCAAAGA ATTACCAGAA	4080
GAAGACACAG ATAAAAATGA CAAG	4104

(2) INFORMATION FOR SEQ ID NO: 170:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8876 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 170:

CACGGATAGG CTCGGCTTTC ATCAGTCCTC AGGCTGATT ACTAATAGCA ACTTTCCTCG	60
ACAAAGTCCA CAGCGATACG TnTGGGTATC AATCCTACGC TTACGCTGAT ACCTTTGCTG	120
GCAGGATTGG CAACGATAGA GCTTGATTGG CTTGGAGTTA CTATTGGGCA AGGATGGTAC	180
AAACCGTAAT CCATCCACTG CTTTCAACAG TTCCTTAAAA TCCCGATCCT TGTGTTGATA	240
GCCTTTCCTT TGAAAATAGA GGTGATAATG ACAGAGTTCA TGTCGGACAA TTTTCCTAAA	300
AACGTCCAAC CCCAGTTCCT GATAAACCTT GGGATTAAAA TCCAAATGCC CATCTTTGGG	360
GAAAAATCGC CCACCTGTGC AACGTAGACG CCTATTCCAC TGGACATGAT GGATAAAAGG	420
TCTGCCGAAG TCTTCTAGTG AAACCTGCTT GACGTAATCA GTCAGTTTCA TTTGGAGCTA	480
GGAGAGACAG ATTAACTTTT TCACGTTTCA TATCAATTTT CTFAACCCAA ACGCTCACCA	540
AATCTCCAAC TGCCACCACT TGACTAGGGT GTTTGATAAA CTTGCGACTC ATATGGGAAA	600

1081

TATGGATGAG ACCGTCCTCA TGAATTCCGA TATCAACAAA AGCACCGAAA TCAACAACGT	660
TACGCACCAC TCCTTCTAGC TTTTGTCCAA CCACTAAGTC CTTGATATCT AGGACATCTT	720
GGCGAaCACA GGTGCGTCAA AGGAATCACG GAAATCTCGA CCTGGTTTGA GAAGATCTGC	780
AATGATATCT TTAAGAGTTT CTGGACCAAG GTCTAACTCT TCGCCCATTT CCTTGACTGA	840
AAGCGACTTG AGTTTGCTTT GGGCTTCTTC GTTTAGGTCT TTAATATCTA AACGTTTGAA	900
GAGTTCCTTA ACTGCAGTGT AATTCTCTGG GTGAACTCCT GTATTATCAA GGATATTGCT	960
ACTTTCAGGG ATACGAAGGA AACCAGCAGC CTGCTCAAAG GCCTTGGCTC CCAGACGAGG	1020
AAC TTTCTTG ATTTGGGCGC GTGAAGTGAT TTTTCCTTCT TCCTCGCGGT ATTTGACAAAT	1080
ATTTTCAGAG ATAGTTTGT TGAGTCCAGC TACGTGTGAA AGAAGAGCTG GGCTAGCTGT	1140
ATTGACATTG ACACCAACTT GGTAAACCAC TGTATCGACA ACAAAGTCCA GACTCTCAGA	1200
TAGTTTCTTC TGACTGACAT CGTGTGGTA TTGACCGACA CCAATTGACT TAGGATCGAT	1260
TTTGACCAAT TCCGCAAGAG GATCTTGCAA ACGACGGCG ATAGAAATGG CAGAGCGTTT	1320
TTCAACGGTC AAGTCTGGAA ACTCCTGACG AGCAAGTTTCG CTGCAGAAAT AGACAGAAGC	1380
ACCAC TTTCA TTAACGATAA CATAGCTGAC TTCAGGGAAA TCTTTCAGAA CTTCGGCTAC	1440
AAAAGCTTCA CTTTCAGCAG TGGCCGTTCC ATTTCCAATG GCAATAATCT CTACACCGTA	1500
TTGACCAATT AAATCTGCTA AATCTTCTT GGCTTCTTCG ATTTGACGAG CTGATGCTGG	1560
TTTAACAGGA TAAATAACCT GAGTTGTCAG CATTTTTCCT GTTGCATCCA CGACAGCTAG	1620
CTTGGCACCT GTACGAAAGG CTGGGTCAA TCCAAGAACC ACGCGCCCTT TCAGTGGAGC	1680
AACCAAGAGG AGATTGCGCA GATTGTCAGA AAAAAAGTTG ATAGCTCCTT CTTGAGCTTT	1740
CTCAGTTAAT TCTGTCCGAA TACGACGCTC GATAGCAGGC AAGACCTTTT TCTTAACGGA	1800
TTGCTGAACA ACTTCATCAA TATAAGCAAT TTTCACCTTG AAACGAGTAG CAAAGAAGGC	1860
AAGAATACGG TCCGTGCGAT GTTCAAAACC GATCTTCAAG ACACCAAGTT TCTCCCCACG	1920
ATTGAGAGCC AAGGTACGAT AGCCTTGCAAT AGTTCCAAC GTCTCTGAAA AATCATAATA	1980
AATCTGAAAA ACCTGCTTTT CATCAAGACT TTCATCCTTG GCTTGAGAAG TAAGTTTAGA	2040
GTGTCTCAGC ACTTCTGAT AAGTCATAGA ACGCAAGGTC ACATCTTCCG ATAAGGCTTC	2100
GACCAAAATA TCAACTGCAC CGGTCAAGGC TTCCTTGCCA GTCGCAAATC CTTACAGAC	2160
GAACTTTTCA GCTTCTTCT CTAAGTCAAC TATATTCTGC AAAATCAAGC GAGCAAGAGG	2220
AAAGAGTCCA GCTTCACGGG CAATGGTTGC CTGGTACGA CGCTTTTCCT TATAAGGAAG	2280
ATAGACTTCT TCAACGCTG CTAATTTTTC GGCAACTAAG ATAGCTTCTT CCAATTCCTT	2340

1082

GGTCAACTTA CCTTGTTCTT GAATCTTAGC TAAGACAGCT TCCTTACGGT CATTGAGATT	2400
TGTCAGACTT TTATCCAAAT CAATAATAGC CTTAATCGCC ACCTCATCCA GACTACCAGT	2460
CATGTCCTTG CGATAACGCG CGATAAAGGG AATAGTCGCC CCTTCAGCTG TCAAACCTAG	2520
AACGGTATCA ATTTGCTTTA ACGTCACTCC CAAATCCTGA GAGATTTTTT CATATTTTTT	2580
ATCCATAAAT CTATTATACC ACAAGCTAAA CGTTTCAAAT TAACTCGTAG AACATTTAAA	2640
AAATATGTAG GAAATAGATT TATATGCTAC AGCGCAATAA CTTGCACTTA AAGAGCATTG	2700
CCACCTTTTT TTAACCAAGC CATGATATCA AAAGTATTTA ATGGATCAGA CATAATAGCC	2760
AGTTCTGGAA GATGTTCTCG ACCTGGAATA ACACATTGAC TTTTCAAATT TTTATATGGA	2820
CGATTGACTA AAATTAATTT ATTAGAATAA GGAAGATTAT CCATCTTATT TAAAATTTCT	2880
TCACCTAGCTG AATCTTTATT ATCAAATTTA AAATAAAGAT TATTCCAATT TATGCGTTTT	2940
TTTCTTTTTT CCCACTTAGT TCGTGCTTCT TCAATACTAG AATAATGTAG AAAATGAATA	3000
TCTATATCTC CTAAGTGCCC CAAAGGATAA ACTTCATGAG TCCAGCTCGG TGAAATAAGT	3060
TCCTCTTCGA AAACAAGTTC TTGTTCCATA TAATAACGAA AATGCTTTGT AAGTTTATAA	3120
TAATCATCAG GAAGAATAAA TAAACCAACA AAAGGTGTTT TATATTGAAA ACCAAGCTGT	3180
TTATAAATTA ATCCTCCAAC ACAATTATTA CTTATAATCG TAAAATCTAA TCTATCAAGC	3240
TCAAGAAAAG GGAAAATTCC TTTCTCTGCA GCTATTAACT TATGATAAAC AATATCAGAA	3300
TCTAAATATT CACCGTCATT TTTTAACCAA GCACTAAAAT TTGCCAATTC TTGAATATAT	3360
TGTTTTTTCG CTCTTTCTAT ATCATAGTTT TCTAAGACGG CGCAATCTTT GATTCTATTT	3420
TCATAATTTT CTAATATGAT TTTGTAGGAG TCTTTTAGAG GTTAGCATC TATAACAGGT	3480
TTATAGATAT ATGTCGGGAA ATTAATATAG GTTGCAGTTT TAGAGTGAAT ATAAAGTCTC	3540
CAAATAAGGT TGTTTATATC AAATTGATTT ATTTTTCGTA AAAGCTTACT ATTGAATAAT	3600
TTTCCAAATA ATGAGCGATA TTGTTTCTA ATTCGATGAT CTGTATCATC CATCTTTTGT	3660
AAAACCTGAA CATTCGTTAA ATTTTCTGTC AACCATTAT CCCCCAAAA AGGATAAAAG	3720
TAAAATACTC CATCAACCAA ATCAGCAAAA TGACCAAGAA CAACATCAGA ATCGGATAAT	3780
TTTATCGCAT GATACATCTT TTCAAATGTC CAATCAAATA ATGAATCATT TGAAGATAGA	3840
AACGTAATAT AATCTCCTGT AATCATATCA GACAACTCAG CAAAAGAATT CTCATCTATA	3900
ATCTTAATAT TAAATGATAG ATTCATCTGT TGGCTAATGG AAGCTATCTC CTCTGTAGAT	3960
TGATTTACAA TAATAACTTC TATATCTTTT AATGTTTGTC TCTCCACTAT TGACAAAGAC	4020
TCTAATAAAC TATTTTTATC TCCTTGATGT AACAAAACAA CACTAATTGA GTAAGTCAGT	4080
TTGACTACCT CCCATAATTT TCTGATAATG ATTTTCTTTT TATTTAATTA TAGCACAAAT	4140

1083

ATGATATATA TCAGGTAATA TCAAGCTATA TTATCTCTTA GCTACTCAAT TTGAAATTTT	4200
AACTTTTCCC TTTTCCGCAA AATAATAGTA TAATAGAGGT AGAATCTAGA ATCGAGGTAC	4260
ACCTATGGCT GTCAAATTTA CAAAACGAGA CGACTTGGAC AAGATGTTTG AAGAGTTTGC	4320
TAAACTCCCT GATTGAAAC AAGTTACTTT CCCTGATGAC AAAGAGAAAA AAGTCAAAGC	4380
AGAAAAGAAA AACTAGATGA CTGCTTTTCA ACAACTCCCA TCTAGTGTAC TTCAAAGTGG	4440
AGCCATTTTT CTCTCCATTA TCATTGAAGC CCTTCCCTTC GTTCTGATAG GAAGCATTGT	4500
CTCAGGGCTG ATTGAAGTTT ATATCACACC TGACAAGGTT TATCATTTTC TCCCTCGAAA	4560
TCGTTGGGGG AGAATCTTTT TTGGGACCTT TGTCGGTATA CTTTTCCTT CTTGTGAATG	4620
TGGAATCGTC CCCATCATCA ATCGTTTCTT GAAAAAAG GTTCCAAGTT ACACGGCCGT	4680
TCCTTTTCTT GTGACAGCAC CTGTTATCAA TCCCATTGTT CTTTTGCGA CCTATTCTGC	4740
CTTTGGCAAC TCCTTCCATG TCGCCCTATT ACGAGCTCTG GGTTCATTTC TTGTGGCTGT	4800
AATACTAGGA ATTTTCTAG GATTTTCTG GCAAGAACCG ATTCAGAAAG AAAATCGTCT	4860
GGCTTGTCAT GAGCATGATT TTTCTTACTT GAGTTCTGCA AAAAAAGTTT TTCAAGTCTT	4920
TGTGAGGCC ATTGATGAAT TTTTGTATAC GGGGCGTTAT TTGGTATTTG GCTGCCTCTT	4980
TGCTTCTATA ATACAGGTCT ACGTTCCGAC TCGGATTCTG ACCTCTATCA GTGCGACCCC	5040
TCTTTTGGCC ATCCTGCTCT TGATGATTTT AGCCTTTCTT CTTTCGCTCT GTAGTGAGGC	5100
GGATGCCTTT ATAGGTGCTT CTCTTCTCTC GAGTTTCGGT TTGGCACCAG TTCTGGCCTT	5160
TCTCGTCATT GGTCCAATGC TGGATATCAA AAATATTCTC ATGATGAAAA ATTACTTGAA	5220
AGCAGGATTT ATCAGTCACT TCATAACAAT TGTAACCTCT GTCGTCTTAG TCTATTCTCT	5280
CTTGATTGGA GTPATCCTAT GATTCGATTT TTAGTTTtag CTGGCTATTT TGAAGTGAAT	5340
ATTTACCTCC ATCTGTCGGG CAAACTAAAC CAGTACATCA ACATGCACTA TTCCTATCTG	5400
GCCTATATCT CCATGGTGCT TTCTTTTATC TTGGCTATCG TTCAATTGTA TATCTGGATG	5460
AAGCAAGTCA AAACCCACAG TCATCTGAAC AGCCGATTAG CCAAGATAAC GAGTATTCTT	5520
CTTCTGGCTA TTCCACTTGT CATCGGCTTA ACTTTCCCAA CTGTTAGCTT GGATTCTCAG	5580
ACTGTTTCTG CTAAGGTTA TCATTTCCCC CTATCGGAAG GAACGGATCT AGCCATTCTG	5640
ACAAGCGAAG GGACGACAAG CCAATATTTG AAACAGATA CCAGTTCTTA TTTTTCAAAA	5700
TCAGCCTATG AAAAGGAAAT GCGAACGGCG GCGGATAAAT ACTTATCCCA AGATAGTATT	5760
CAGATCACTA ATGAAAATA TATGGAAGTC ATGGAGGCTA TCTACGACTA TCCAGATGAG	5820
TTTGAGGGCA AGACAATCCA GTTTACAGGC TTTGCTCTATA ACGACCCAG TCATGCCAAT	5880

1084

AGTCAATTTC TGTTCGGATT CGGCATTATC CACTGTATCG CAGATTCTGG TGTCTATGGA	5940
TTGCTGACCA AGGGCAATAC CCGGCAGTAT GAAAACAACA CTGGGATAAC AGCCAAAGGA	6000
AAACTGGTCA ATCACTACCA TAAAGAAGTC AAACAAAACC TTCCAACCTT GGAAATCGAC	6060
AGCTTTACCA AAGTCGATAA ACCAGAAAAT CCCTATGTAT ATAGAGCTTT TTAAGAAAAT	6120
CAAGATAAAA ACGAACAAGT TCTCTTCTGA ATAACAGAAA AAGAGCCTGT TCGTTTTTTG	6180
TTATATGAAA ATTAGTGACT TGTAGATTTT CATCTTATAC CATTCACAGC AATACAAGTA	6240
GCTCATAGAA AATAAGCGAG CCACTCATTC ATTAGACTAG CGATTTCTTT AGGTGCTTGA	6300
GTATAAAGCT CATGGCCAAA GTTTTCTAAA AAAATAGTAT CAAAATAGTC TGGCAATTCT	6360
TTTAGGGCTT CCTCTCTCCA TGTAGCTTCA TTAGGATAGC GAGGACTAAT AAACAAGGTA	6420
TCTCCCACTT CTCTCTTAAA AGCTTGATTT TTTCTCCGTA GcGGAGTATC GCTTCTATAT	6480
TTTCATAATT TATAGCCAAC TCATATCTAT TATACTCAAC ATTCCAGTGA TAAGACTGTC	6540
TTACAGCTTT CTCCATATTT TCTGACCAAT GCTTTGCTTC AGATTTTCTT TTAGAAGTAA	6600
GAACATCTAA GTCCGAAACA ATTTGAGATT TGATATAATT TTTAGTTTCC TCTAACTCTG	6660
TATCCAAAGG TAAATCTTA TCTAAATCTA GATAGCCACC ATCCAAAAGA ATCAGTTTCT	6720
TTACTTCTTC AAATTCGAT GCGAAATAAC GAGCTAAATC TCCTCCAAGA GAATGGCCTA	6780
TCAGACAGAT AGATTCCTCC TCTACAATTT CATTTTAAA CCATGATTC AATTCTGTTT	6840
CATCTCGAAG ATGCTTTTCA TATGGATTTA GAAAATAGAC CTGCGAATCT AGTTCTTGAA	6900
GAAAATCCTT GCTATGATAG GCATTGCTTC CCAAACCGCC AATAAAATAT TTTTTCATTC	6960
TCTACTTAAT ACTATGCTTA TTCATCTTTT GTTCAAAGAT AGTTGTGATA ATCTGACGCA	7020
ATTCTTCGCG TTTTTTTTCT GGAATCTCAC CACTTGTTTG AGCTACAGCG TAGAGTTCAG	7080
GGTATTCAAT TGAAATGCGT TTAATCGTAC GTGTTGTAGC ATGTTTTCTG AAAAAAAGC	7140
GGATTCGCTT AATCAAGTCT TGTGGGACTA GCGCCAGAAT CTCTCAGTA GTTCTTTTGT	7200
CACTAATATT AGACATTGTA AGCCTTTTCT TAATCATTTT CTGTTCTTTT TCTGTAAAAT	7260
CTTTTAATTC CATTCGATTA GTCCTCCTAT TTTCTCTAAG TTAAATTATG TACTAATACA	7320
GATGAAACTA CAAAGAATAA ACTTTAAGAA ATCTTCTCAC TGATAAGATT TTAGCATTAG	7380
ACTTCTGCG AAACAAAATA TGGTATAGTA GTTCTATGAA TTATGAAGCA AGTAAACAAC	7440
TAAGTATGTC ACGATTTAAA CGTCTTGTTG GTGTTGAGCG CACGACTTTT GAAGAGATAT	7500
TAGCTGTATT AAAAACAGCT TATCAACTTA AACACGCAAA AGGTGGACGA AAACCTAAAT	7560
TAAGCCTAGA AGACCTTCTT ATGGCCACTC TTCAATATGT GCGAGAATAC CGCACTTATG	7620
AAGAAATTGC GGCTGATTTT GGTATTCACG AAAGCAACTT AATCCGTCGG AGCCAATGGG	7680

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TTTAAGTAAC TCTTGTCAA AGTGGTGTTA CGATTCCAAG AACTCCTCTC AGTTCTGAGG	7740
ACACGGTAAT GATTGATAGC CATTCCCATC AATATCGTAT CTTTGGACAT AGCCAATAAA	7800
TGTTTCATTT TTGCGTGGTT TCTGGCTATT AACGATTGAA ATAACCCACC AACTTATCAA	7860
AAATAGAAAT AAAAATCCTA AGATTACTGT CATATCATAA CACTATTAAA GTTTAACCCA	7920
CTTATCATT TCCATGATAA AAGGCTTAGC CAGTCCCCTG CCTGTATAAT CCGCATACTT	7980
GGTGCCCAA TACTTGTAGC AATCTTCCTT ACTAGCAAAT TTAATCGCTT GGTAGGGCTC	8040
TTCGAAAGTC AATTCTCTA CAAATAAGAA ACCGTCATCA GCAGGTACTA AGACCCCAAC	8100
GTGGCCTACA AACAGATACT CGCCATCCAA ATTGTCGTGC AAGACTACAG ACAGCATTCG	8160
AGCTTTTCA TTGAATTGAA ATTGTGAGAA GAATGCTTCC ATCTTTTCAG CGTGAACCTT	8220
GACATCTGTA GTTGACTCAG TTGGAACCTC CGAAATAGA ATATCAAACCT CTCCTTATC	8280
TTGTGAATCA AAGACCTTC CTTTATCAAT CGCATCATT TCTAGGAAAA GCAACTGGTC	8340
ATTCTTTTCA AGCTTTGGAA TGGTGACTGA ATTTTTCAAA AGACAATAAC TATTGATACG	8400
GCAGTTGGTC CCAACAAAAT CGCCCTCCTT TTGATTCCAG AGATGACTGA TTTTCTCAAC	8460
ATCGTATTCG GTGTGAGTAA AGGAAGTGAA ATCTCCTGAT AAGCCAGTTG AGCCGACAA	8520
GGTATTATAG TCATTAACGA GATTAAAAA TGCATCAACA CTATTTGGAT CCAAGTGAGC	8580
TGATAAGAGA GATTTGACCT CTTCTGTACT TACCTGGTTG TTTAGGTTGG TGTATGAAGC	8640
TTTCCATGGA ACTTTCGCTG AACTGCTTTG CCTTTGATTG GTCCCCTCAG AAGTAGCATG	8700
TTGTTGTTGA CAAGCAGCCA AGCCTAAAA CAAGGCTGAA CAGATTCCTA ATGTGGCTAA	8760
TTTTCTTGAT TTCTTCATTT CTTTCTCCTA AATGTCCTGG ATTAAAGTTT CTTTAACTAT	8820
TGCTTTACAG ATATTGATTA CTTTCTCATT TAATGTGTTT ATCGTCTTTC CTCCGG	8876

(2) INFORMATION FOR SEQ ID NO: 171:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14736 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 171:

CGCAAACCTT CGCGGTCGGA AGGTAGTTT ATGACACGAT TTGAGATACG AGATGATTTC	60
TATCTCGATG GAAAATCATT TAAGATTTTA TCTGGTGCCA TTCATTATTT TAGGGTTCCT	120
CCAGAGGATT GGTATCATTC GCTCTATAAC TTGAAGGCTC TTGGTTTAA TACGGTAGAG	180

1086

ACTTATGTTG CTTGGAATTT ACACGAGCCT TGTGAAGGTG AGTTTCATTT TGAAGGTGAT	240
CTGGATTTAG AGAAATTTCT CCAAATAGCG CAGGATTTGG GTCTCTACGC AATTGTGCGT	300
CCGTCTCCAT TTATCTGTGC GGAATGGGAA TTCGGTGGCT TACCAGCTTG GCTCTTGACC	360
AAGAACATGC GAATTCGCTC ATCCGACCCA GCATATATCG AGGCAGTTGG TCGCTACTAT	420
GATCAGTTAT TGCCAAGACT GGTGCCTCGT TTGTTGGACA ATGGTGGCAA TATTCTCATG	480
ATGCAGTTG AAAATGAGTA TGGTTCTTAC GGAGAAGATA AGGCTTACCT GAGAGCGATT	540
CGACAGCTAA TGGAAGAGTG TGGCGTAACC TGTCCCTCTT TTACATCAGA TGGTCCATGG	600
CGAGCTACTC TGAAAGCTGG AACCTTAATT GAAGAGGACC TCTTTGTAAC AGGAAACTTT	660
GGTTCTAAGG CACCTTACAA CTTTTCGCAG ATGCAGGAAT TCTTTGATGA ACATGGTAAG	720
AAATGGCCAC TCATGTGTAT GGAGTTCTGG GATGGTTGGT TCAATCGCTG GAAAGAACCG	780
ATTATCACAC GGGATCCTAA GGAATTGGCA GATGCAGTTC GAGAGGTTTT GGAACAAGGC	840
TCTATCAATC TTTACATGTT CCACGGTGGT ACAAACCTTG GTTTCATGAA TGGTTGCTCA	900
GCTCGAGGAA CTTTGGACCT GCCACAAGTT ACGTCTTATG ATTACGATGC CCTTCTGGAT	960
GAAGAAGGAA ATCCAATGTC TAAATATCTT GCAGTCAAGA AGATGATGGC AACACATTTT	1020
TCAGAGTATC CGCAGTTGGA ACCACTCTAC AAAGAGAGTA TGGAGTTGGA TGCTATTCCA	1080
CTAGTTGAAA AAGTTTCTTT GTTTGAAACC TTAGATAGCT TGTCAGTCC TGTAGAAAGT	1140
CTCTATCCTC AAAAGATGGA GGAGCTGGGA CAAAGTTATG GCTACCTACT TTATCGAACA	1200
GAAACAACT GGGATGCAGA AGAAGAAAGA CTTCTGATCA TTGATGGTCG AGATAGGGCC	1260
CAGCTGTATG TCGATGGTCA GTGGGTAAA ACTCAATATC AGACAGAGAT TGGGGAAGAT	1320
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GGGCGTGTC AACTATGGCA TAAGTTCTTA GCGGATACGC AACGTAAGGG AATTCGGACA	1440
GGGCTCTGTA AGGATCTGCA TTTCTTACTA AACTGGAAAC ACTATCCACT CCCACTAGAC	1500
AATCCTGAGA AAATTGATTT TTCAAAAGGA TGGACTCAAG GACAACCAGC CTTTACGCT	1560
TATGACTTTA CAGTCGAAGA GCCAAAAGAT ACTTACCTAG ACTTGTCTGA GTTTGGTAAG	1620
GGGGTTGCCT TTGTCAATGG GCAGAATCTA GGACGTTTTT GGAACGTTGG CCCAACTCTC	1680
TCACTTTATA TCCCTCATAG CTATCTCAAG GAAGGTGCCA ACCGCATCAT TATCTTTGAA	1740
ACAGAAGGTC AATATAAAGA AGAGATTCAT TTAACTCGTA AACCTACACT AAAACATATA	1800
AAGGGGAAA ACTTATGACA ATTGTAGGAT GCCGTATTGA TGGACGTTTG ATCCACGGAC	1860
AAGTAGCCAA TCTTTGGGCT GGAAAACTAA ATGTTTCACG CATTATGGTT GTAGACGACG	1920
AAGTTGTCAA CAACGATATT GAAAAGAGTG GTTTGAAACT TGCGACACCA CCAGGTGTGA	1980

1087

AATTGAGTAT TTTGCCAGTT GAGAAAGCTG CAGCCAATAT TCCTGGTGGC AAATACGATA	2040
GCCAACGTCT CTTTATCGTG GCTCGTAAAC CAGACCGCTT CCTTGGTTTG GTAGAAGCAG	2100
GTGTACCACT TGAAACCCTT AATGTTGGGA ATATGCTCTCA AACACCAGAA ACTCGTTCTA	2160
TTACACGTTC TATCAACGTA GTAGACAAGG ATGTGGAAGA CTTCACAAA CTGGCAGAAA	2220
AAGGTGTTAA ACTTACTGCT CAGATGGTTC CAAATGATCC AATTTAGAC TTTTGTAGCT	2280
TATTAATAA GGAATAAAT TTTTAGGAGG TCATTGTTAT GATACAATGG TGGCAATTT	2340
TACTTCTCAC TTTGTACTCA GCTTATCAAA TCTGTGATGA GTTGACGATC GTTTCATCTG	2400
CAGGTCCCC TGTATTTGCT GGTTCATTA CTGGTTTAAAT CATGGGAGAT GTGACTACTG	2460
GTCTACTTAT CGGTGGTAAC TTGCAACTGT TCGTCTTGG GGTGGTACC TTCGGTGGTG	2520
CTTCTCGTAT CGACGCAACT TCTGGTGGG TTCTTGCAC ACCTTCTCTG TTTACAAGG	2580
AATTGATGCA CCGCTTGCCA TTAACAAT CGCTGTACCA GTAGCAGCTC TCTTGACTTA	2640
CTTCGACGTT CTGGTGGTA TGAATACTAC CTTCTTGGCT CACCGTGGG ATGCTGCAAT	2700
CGAACGCTTT GACTATAAAG GTATTGAACG CAACTACTTG CTGGTGGCA TTCGGTGGC	2760
TCTATCTCGT GCCCTTCCAG TCTCTTTGC CCTTGGTTT GGTGGTGCCT TTGTACAATC	2820
AGTAGTAGAC TTCGTTGAAG CCTACAAATG GGTGACGAT GGCTTGACAC TTGCAGGACG	2880
TATGCTTCCA GGTCTGGAT TTGCAATCTT GCTTCGTTAC CTTCCAGTTA AACGTAACCT	2940
TCACTACCTT GCTATGGAT TTGGTTTGAC AGCTATGTTG ACTGTTCTTT ACTCATATGT	3000
AACAGGTCTT GGTGGCGCTG TTGCTGGTAT CGTAGGTA CTTCCTGCTG AAGTTGCTGA	3060
AAAAATTGGT TTCGTGAACA ACTTCAAAGG TTTGTCTATG ATTGGTATTT CTATCGTAGG	3120
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AAGATTTTAA TCAAATCAAC AACGTAGCT TGTCTACTTT CCAATTAGGT TGGAACTACG	3300
AACGTATGCA AGCTTCTGGT TACCTTTACA TGATCTTGCC TCAGTTGCGT AAAATGTATG	3360
GTGATGGAAC TCCTGAATTG AAAGAAATGA TGAAAGTTCA TACTCAATTC TTCAATACTT	3420
CACCATCTTT CCATACCATT ATCGCTGGTT TTGACCTGC CATGGAAGAA AAAGATGGTG	3480
TAGGTTCAAA AGACGCCGTT AACGGTATCA AGACAGGTTT GATGGGACCA TTCGCTCCTC	3540
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TGGCTATCGC TGCCCAACCT TGGGGATCT TCCTTTGGAT TGCAGTTGCA GTAGCGTATG	3660
ACATCTTCCG TTGGAACAG TTGGAATTTG CTTACAAAGA AGGGGTTAAC CTTATCAACA	3720

1088

ACATGCAAAG TACCTTGACA GCTTTGATTG ACGCTGCATC TGTACTTGGT GTCTTCATGA	3780
TGGGTGCTCT TGTAGCAACA GTGATTAACT TTGAAATTTT TTACAAGTTG CCAATCGGTG	3840
AAAAGATGAT TGATTTCCAA GACATCTTGA ACCAAATCTT CCCACGTTTG CTTCCAGCAA	3900
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TCGGTATTAT TATCGTACTT GCTTTGGCTC TTTCTGCCCT TGGTCACTTT GCACTTGGAA	4020
TGTAATTCCCT TATGACTAAA TCATTAAATTT TGGTGAGCCA TGGTCGCTTC TGTGAGGAGC	4080
TTAGAGGTAG CACAGAAATG ATTATGGGCC CACAAGACAA CATTTACACA GTAGCTCTTC	4140
TTCCAGAAGA TGGCCCAGAA GAATTTACTG CTAAATTTGA AGCTGTTATT GAAGGATTGG	4200
ATGATTTCCT AGTCITTTGCG GATCTTCTCG GTGGGACACC TTGTAATGTG GTGAGTCGCT	4260
TGATCATGGA AGGTCGTGAT ATTGACCTTT ACGCAGGGAT GAATCTTCCA ATGGTGATTG	4320
AATTTATCAA TCGGAGCCTT ACAGGCGCAG ATGCGGACTA CAAGAGCCGT GCTGCAGAAA	4380
GCATGTGAA AGTTAATGAC CTGTTAGCGG GCTTCGATGA TGACGAAGAT GAATAATACT	4440
CTTCGAAAA CTCTTCAAAC TACGTCAACG TCGCCTTGCC GTAGgTATAT GTTACTGACT	4500
TCGTCAGTCT TATCCGGCAA CCTCAAAACG GTGTTTTGAG CTGACTTCGT CAGTCTTATC	4560
CGGCAACCTC AAAGCAGTGC TTTGAGCAGC CTGCGGCTAG TTTCTACAG ATTTTAGTTG	4620
GAATCGATT CAATTCATGT GACAACGTGA AAATCGTTAG AGCATTTTAT ATAGAATATA	4680
CATGGGAATG TAGCTTACTC CCATTCCCAT ATTTAATAGA AAAAGAGGAA CTCATGCTA	4740
CATTATACAA AAGAAGACTT GCTCGAATTG GGTGCAGAAA TCACTACGCG TGAATCTAC	4800
CAACAGCCTG ATGTATGGAG AGAAGCTTTT GAATTTTATC AAGCAAAACG TGAAGAAATT	4860
GCAGCCTTCC TACAAGAAAT CGCTGATAAA CATGACTATA TTAAGGTTAT CTTGACAGGT	4920
GCTGGGACTT CTGCTTATGT GGGAGATACC TTGCTACCTT ATTTTAAGGA AGTCTATGAC	4980
GAACGCAAAAT GGAATTTCAA TGCTATTGCG ACAACAGATA TCGTTGCCAA TCCAGCAACC	5040
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TTGCTCTTGC AACCAGCTGT CTCTAATGAT GCTGGATTG CCATGACTTC TAGCTTTACG	5280
TCTATGATGT TGACAACTCT CTTGGTCTTT GATCCTACAG AATTGCTGT TAAGTCTGAA	5340
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GAGTCGTTG ATTTAGACTT TAACCGTGC ATCTATCTAG GCGCTGGTCC TTTCTTTGGA	5460
CTTGCTCATG AAGCTCAGCT CAAGATTTTG GAATTAACCTG CTGGTCAAGT TGCGACCATG	5520

1089

TATGAAAGCC CAGTTGGCTT CCGTCACGGT CCAAAATCTC TTATCAACGA CAATACAGTT	5580
GTTTTGGTCT TTGGTACAAC GACAGACTAC ACTCGTAAGT ACGACTTGGA CTTGGTTCGT	5640
GAAGTTGCTG GTGACCAGAT TGCTCGTCGT GTTGTGCTTT TGAGTGATCA AGCTTTTGGT	5700
CTTGAAAATG TCAAAGAAGT GGCCCTTGGT TGTGGCGGTG TCTTGAATGA TATTTACCGT	5760
GTCTTCCTT ACATCGTTTA TGCCCAACTC TTTGCTTTAT TGACTTCACT CAAGGTAGAA	5820
AATAAACAG ATACACCGTC TCCTACAGGT ACAGTAAACC GTGTAGTACA AGGTGTCATA	5880
ATTCACGAAT ATCAAAAGTA AGACAGTGT TATGAATTCT TGACAAGAGG ATTTGTAAAT	5940
TATCAGATA ACCATAGATT GTCAGTACGC TTTCTATGGT TTGTTTGCTT GAGAGAAATA	6000
GTAAAGGAG AACAGAATGA AAGCATACAC AGAGCGTGTA TTTGAAAATG TTGAGGGTGA	6060
GGATGTCTTG GCCTATCGAT TTGAGACAGA CCGTGGCTAC CAACTTGAGG TTATGACTTA	6120
TGGTGCAGT ATCTTGCCT ATGTGCGACC TGACAAGGCT GGAAATTTTG CCAATGTTAT	6180
CTTGGGATTT GATGACTTG ATAGTTATGT AGGCAATAGT CCCAAGCATG GAGCAAGTGT	6240
AGGTCCGTGA GCGGGTCGTA TTGCAGGTGC GACCTTTGAG CTCAATGGTA AGACCTATGA	6300
CCTTGAGGTT AATAATGCTA GCAACTGTAA TCACAGTGGT TCAACTGGTT GGGATTCCAG	6360
CTTGTTTGAA GTTGAAGAAG TAAGCGATCA TGGCTTGACT CTCTACACAG AGCGTACAGA	6420
TGGGACAGGA GGGTTCCCTG GAAATCTCAA GATTTGGATC AGTTATCACT TGGAAGAAAC	6480
TGGTGCCTAT GAAATCAGCT ACAAGGTAAC GACCGATCAG GATACGCTGG TCAATCCAAC	6540
CAACCACAGC TATTTCAACT TGTCTGGTGA TTTCACGCAG ACGATTGACC GTCATGTCTT	6600
CCAACTAAAC ACAGAGGGCA TTTACTCAAT CGCTCCTGAC GGTGTTCCCTG CCAAACTCC	6660
AGAAGCCAAC CGTGATGTGG TCAAACACGT CTACAATGGT ACCTTGTTGA AGGATATCTT	6720
TGCAGAAGAA GATGAGCAAA TCCAGCTGGC ATCAGGTTTG GATCATCCAT TTGCCCTTCC	6780
TGCAGGCCAT GACAATGCTG GATTCCCTTA TGACCAAAAT TCAGGTCGCT TCCTGCTTTT	6840
CAAGACAGAA GCTCCTTGCT TTGTGGTCTA CACAGCAAAC TTTGTGGATG AAAGTGTCT	6900
CATAGGAGGT CAGCCAATGC TACAGCACAA TGGGATTGCT CTTGAAGCGC AAGCTTTACC	6960
AGATGCCATT CACAGTGACC TTAAAGGCCA AGTCATTCTT AAAGCTGGTC AAACCTTCAC	7020
CAGTAAGACA CGTTATGAAC TTGTTGTGAA GTAAAAGAGT CATTGCGCCT ACTTTTGGGA	7080
GCTAGGAATA GGTACGCAGA GACAAATAGT AGGAAAATAT GATATAACTA AGCGTTGAAA	7140
GCTATCTGTT AATATAATAT TCAAACTACA ATAAGGAGTA AGAAAGAAAC GAAGAAAATT	7200
GTATTTGCTA GTGCCTTGGC TTGACCTTG GCTGGAGCAG TTTTGACAAA TGATGTTTTT	7260

1090

GCGAACGACA GACTTGTGGC AACACAACT ACTGATGGTA AAAATGAAAA TGTATTGACC	7320
TCAGAGGTGC TAAACCTTC TAGTGGCAAT GTTTTGGTTG GAATCAAAGG AGAATTTGTG	7380
GCTCCTCATC AACAATCTAT TTTGGATGCC ATCAATGCTA TCTGTAAAGA AGCGGCTGAC	7440
GAAGGTTTGG TAGATAAGTA TGTCCCTATC AAATGATCAA CTGACCTAGA AAAGGCAGCT	7500
TTTGCCAGAG CTACAGAAGC ATCTATAACC ATGGATCATA CCCGTCTTTC TAGCAAAGAT	7560
CTTTGGAGTG CCTTTCCAAC TTCTAATAGT ATAATGGGAG AAAATTTGGC ATGGAATCAT	7620
GACGGTTTTT TAAAGCTAT TGAACAATGG CGTGTGAAA AAGCAGATTA TGTGGAGAAA	7680
AAAATAGTGG TTCAGACAAC GGGAAATCTG GTCACATGA GTCGCTAATT AACCTAAAT	7740
TTACACACAT GGGGATGGCA GCTTTTAAAA ATCCTAACAA TCAATACAAA GCTATTACAA	7800
TTGCTCAAAC TCTAGGTGAT GATGCTTCTT CAGAGGAATT GGCTGGTAGA TATGGTTCTG	7860
CTGTTCAAGT TACAGAAGTG ACTGCCTCAA ACCTTTCAAC AGTTAAACT AAAGCTACGG	7920
TTGTAGAAAA ACCACTGAAA GATTTTAGAG CGTCTACGTC TGATCAGTCT GGTGGGTGG	7980
AATCTAATGG TAAATGGTAT TTCTATGAGT CTGGTGATGT GAAGACAGGT TGGGTGAAAA	8040
CAGATGGTAA ATGGTACTAT TTGAATGACT TAGGTGTCAT GCAGACTGGA TTTGTAAAT	8100
TTTCTGGTAG CTGGTATTAC TTGAGCAATT CAGGTGCTAT GTTTACAGGC TGGGGAACAG	8160
ATGGTAGCAG ATGGTTCTAC TTTGACGGCT CAGGAGCTAT GAAGACAGGC TGGTACAAGG	8220
AAAATGGCAC TTGGTATTAC CTTGACGAAG CAGGTATCAT GAAGACAGGT TGGTTTAAAG	8280
TCGGACCACA CTGGTACTAT GCCTACGGTT CAGGAGCTTT GGCTGTGAGC ACAACAACAC	8340
CAGATGGTTA CCGTGTAAT GGTAAATGGT AATGGGTAAA CTAGGCTCAG GCCATAGGTA	8400
AAGCATTATC CTTACTTAGC AAAAAGAATG AACGATAAGA AAGAGGTTGA TGGCGAACAT	8460
TGGCCTCTTT TGATTATATA AGATTGGATT CTTGTGCGCT CAATTTCAGA CTTTCTATT	8520
GTAAGCTAAT ATTTTATAGC CCATTAAAAG CATAAGCGGT AATCTAATTT AAAAAATGCT	8580
GTAATTAGTC TGAAGTCCAC ACTTACTTGT TGAGATGTTA TCTCTGTTT TTATCGTTA	8640
AATTTACTGT ATTTTTTATA GTATGCAGAA TATTTTAAAG TATATTTCAA TAGAAATTC	8700
TATCGATTTA TTGTATAATG ATAAGTAATT GTTGAAAAGT ACTCAGAAAA TTCCATACTA	8760
TATTATTTTT ATGTTTATAC TTTTATGCTA TAAAATATAG ATTGATATAA AGAATATAGA	8820
AAAAGCGAGG TTAATATGAG CCGAAAAAGC ATTGGTGAGA AACGCCATAG TTTCTCGATG	8880
AGAAAGTTGT CAGTGGGATT GGTATCAGTT ACTGTATCTA GTTCTTTTTT GATGAGTCAA	8940
GGGATTTCAAT CGGTATCGGC CGATAATATG GAAAGTCCAA TTCATTATAA GTATATGACC	9000
GAGGGTAAAT TGACAGACGA GGAAAAATCC TTGCTGGTAG AGGCCCTTCC ACAACTGGCT	9060

1091

GAAGAATCAG ATGATACTTA TTAAGTTGGT TATAGATCTC AACAGTTTTT ACCGAATACA	9120
GGTTTTAACC CAACTGTTGG TACTTTCCTT TTTACTGCAG GATTGAGCTT GTTAGTTTTA	9180
TTGGTTTCTA AAAGGGAAAA TGGAAAGAAA CGACTTGTTC ATTTTCTGCT GTTGACTAGC	9240
ATGGGAGTTC AATTGTTGCC GGCCAGTGCT TTTGGGTTGA CCAGCCAGAT TTTATCTGCC	9300
TATAATAGTC AGCTTTCTAT CGGAGTCGGG GAACATTTAC CAGAGCCTCT GAAAATCGAA	9360
GGTTATCAAT ATATTGGTTA TATCAAACT AAGAAACAGG ATAATACAGA GCTTTCAAGG	9420
ACAGTTGATG GGAAATACTC TGCTCAAAGA GATAGTCAAC CAACTCTAC AAAAACATCA	9480
GATGTAGTTC ATTCAGCTGA TTTAGAATGG AACCAAGGAC AGGGGAAGGT TAGTTTACAA	9540
GGTGAAGCAT CAGGGGATGA TGGACTTTCA GAAAAATCTT CTATAGCAGC AGACAATCTA	9600
TCTTCTAATG ATTCATTGCG AAGTCAAGT GAGCAGAATC CGGATCACA AGGAGAATCT	9660
GTAGTTCGAC CAACAGTGCC AGAACAAGGA AATCCTGTGT CTGCTACAAC GGTGCAGAGT	9720
GCGGAAGAGG AAGTATTGGC GACGACAAAT GATCGACCAG AGTATAAACT TCCATTGGAA	9780
ACCAAAGGCA CGCAAGAACC CGGTCATGAG GGTGAAGCCG CAGTCCGTGA AGACTTACCA	9840
GTCTACACTA AGCCACTAGA AACCAAGGT ACACAAGGAC CCGGACATGA AGGTGAAGCT	9900
GCAGTTCGCG AGGAAGAACC AGCTTACACA GAACCGTTAG CAACGAAAGG CACGCAAGAG	9960
CCAGGTCATG AGGGCAAAGC TACAGTCCGC GAAGAGACTC TAGAGTACAC GGAACCGGTA	10020
GCGCAAAAG GCACACAAGA ACCCGAACAT GAGGGCGAAG CGGCAGTAGA AGAAGAAGCTT	10080
CCGGCTTTAG AGGTCACTAC ACGAAATAGA ACGGAAATCC AGAATATTCC TTATACAACA	10140
GAAGAAATTC AGGATCCAAC ACTTCTGAAA AATCGTCGTA AGATTGAACG ACAAGGGCAA	10200
GCAGGGACAC GTACAATTCA ATATGAAGAC TACATCGTAA ATGGTAATGT CGTAGAACT	10260
AAAGAAGTGT CACGAAGTGA AGTAGCTCCG GTCAACGAAG TCGTTAAAGT AGGAACACTT	10320
GTGAAAGTTA AACCTACAGT AGAAATTACA AACTTAACAA AAGTTGAGAA CAAAAATCT	10380
ATAACTGTAA GTTATAACTT AATAGACACT ACCTCAGCAT ATGTTTCTGC AAAACGCAA	10440
GTTTTCATG GAGACAAGCT AGTTAAAGAG GTGGATATAG AAAATCCTGC CAAAGAGCAA	10500
GTAATATCAG GTTTAGATTA CTACACACCG TATACAGTTA AAACACACCT AACTTATAAT	10560
TTGGGTGAAA ATAATGAGGA AAATACTGAA ACATCAACTC AAGATTTCCA ATTAGAGTAT	10620
AAGAAAATAG AGATTAAAGA TATTGATTCA GTAGAATTAT ACGGTAAAGA AAATGATCGT	10680
TATCGTAGAT ATTTAAGTCT AAGTGAAGCG CCGACTGATA CGGCTAAATA CTTTGTAATA	10740
GTGAAATCAG ATCGCTTCAA AGAAATGTAC CTACCTGTAA AATCTATTAC AGAAAATACG	10800

1092

GATGGAACGT ATAAAGTGAC GGTAGCCGTT GATCAACTTG TCGAAGAAGG TACAGACGGT	10860
TACAAAGATG ATTACACATT TACTGTAGCT AAATCTAAAG CAGAGCAACC AGGAGTTTAC	10920
ACATCCTTTA AACAGCTGGT AACAGCCATG CAAAGCAATC TGCTGTGGT CTATACATTG	10980
GCTTCAGATA TGACCCGAGA TGAGGTGAGC TTAGGCGATA AGCAGACAAG TTATCTCACA	11040
GGTGCATTTA CAGGGAGCTT GATCGGTTCT GATGGAACAA AATCGTATGC CATTTATGAT	11100
TTGAAGAAAC CATTATTTGA TACATTAAAT GGTGCTACAG TTAGAGATTT GGATATTAAA	11160
ACTGTTTCTG CTGATAGTAA AGAAAATGTC GCAGCGCTGG CGAAGGCAGC GAATAGCGCG	11220
AATATTAATA ATGTTGCAGT AGAAGGAAAA ATCTCAGGTG CGAAATCTGT TCGGGGATTA	11280
GTAGCGAGCG CAACAAATAC AGTGATAGAA AACAGCTCGT TTACAGGGAA ACTTATCGCA	11340
AATCACCAGG ACAGTAATAA AAATGATACT GGAGGAATAG TAGGTAATAT AACAGGAAAT	11400
AGTTCGAGAG TTAATAAAGT TAGGGTAGAT GCCTTAATCT CTAATAATGC ACGCAATAAT	11460
AACCAAACAG CTGGAGGGAT AGTAGGTAGA TTAGAAAATG GTGCATTGAT ATCTAATTCTG	11520
GTTGCTACTG GAGAAATACG AAATGGTCAA GGATATTCTA GAGTCGGAGG AATAGTAGGA	11580
TCTACGTGGC AAAACGGTCG AGTAAATAAT GTTGTGAGTA ACGTAGATGT TGGAGATGGT	11640
TATGTTATCA CCGGTGATCA ATACGCAGCA GCAGATGTGA AAAATGCAAG TACATCAGTT	11700
GATAATAGAA AAGCAGACAG ATTCTGCTACA AAATTATCAA AAGACCAAAT AGACCGGAAA	11760
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CTAAGAGAAG TTGATTATAC AAGACTAAAT AAAGCAGAAG CTGAAAGAAA AGTAGCTTAT	11880
AGCAACATAG AAAAAGTAT GCCATTCTAC AATAAAGACC TAGTAGTTCA CTATGGTAAC	11940
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GATGATGAAG TAGTAACGGA TATTAATAAT AAGAAAAATT CAATAAATAA AGTTATGTTA	12060
CATTTCAAAG ATAATACAGT AGAATACCTA GATGTAACAT TCAAAGAAAA CTTCATAAAC	12120
AGTCAAGTAA TCGAATACAA TGTACAGGA AAAGAATATA TATTCACACC AGAAGCATT	12180
GTTTCAGACT ATACAGCGAT AACGAATAAC GTACTAAGCG ACTTGCAAAA TGTAACACTT	12240
AACTCAGAAG CTACTAAAAA AGTACTAGGA GCAGCGAATG ATGCAGCCTT AGATAACCTA	12300
TACTTAGATA GACAATTTGA AGAAGTTAAA GCTAATATAG CAGAACACCT AAGAAAAGTA	12360
TTAGCGATGG ATAAATCAAT CAATACTACA GGAGACGGTG TAGTTGAATA CGTAAGTGAG	12420
AAAATCAAAA ATAACAAAGA AGCATTTATG CTAGGTCTTA CTTATATGAA CCGTTGGTAC	12480
GATATTAATT ATGGTAAAAT GAATACAAAA GATTTATCTA CGTACAAGTT TGACTTTAAC	12540
GGAAATAATG AGACTTCAAC GTTGGATACT ATTGTGCGAT TAGGAAATAG TGGACTAGAT	12600

1093

AACCTGAGAG CTTCAAATAC TGTAGGTTTA TATGCGAATA AACTTGCAATC GGTAAGGGA	12660
GAAGATTGAG TCTTTGACTT CGTAGAAGCG TATAGAAAAC TGTTCTTACC AAACAAAACA	12720
AATAACGAGT GGTTTAAAGA AAATACAAAG GCATATATAG TCGAAATGAA GTCTGATATT	12780
GCAGAAGTAC GAGAAAAACA AGAATCACCA ACAGCCGATA GAAAATATTC ATTAGGAGTT	12840
TACGATAGAA TATCAGCACC AAGTTGGGGG CATAAGAGTA TGTTATTACC ACTACTAACT	12900
TTACCTGAAG AATCTGTGTA TATTTTCATCG AATATGTCTA CACTTGCAAT CGGTTCTGAT	12960
GAAAGATATC GTGATAGTGT GGATGGAGTT ATTCCTTCAG GAGATGCTTT ACGAACTTAT	13020
GTAAGAAATA GAGTTGATAT AGCAGCGAAA AGGCATAGAG ACCATTATGA TATTTGGTAC	13080
AATCTTCTTG ACAGTGCTTC AAAAGAAAAA CTTTCCGTT CTGTGATAGT TTATGATGGA	13140
TTCAATGTAA AAGATGAGAC AGGAAGAACT TATGGGCAA GGTAAACGGA TAAAAACATC	13200
GGCTCTATTA AAGAATTCTT CGGACCTGTT GGGAAATGGT ATGAGTATAA TAGTAGTGCA	13260
GGAGCGTATG CGATGGAAG TTTAACGCAC TTTGTGTTAG ATAGATTATT AGATGCTTAT	13320
GGACGTCGG TTTTACTCA TGAAATGGTT CATAATTCTG ATTCGCAAT CTACTTTGAA	13380
GGAAATGGTA GACGTGAAGG ATTGGGAGCG GAGTTATACG CACTTGGTTT ACTGCAATCT	13440
GATAGATAGT TAAATCTCTA TATTTTAGCT TTAAATACGT TATATAAGC AGAAAAAGAT	13500
GATTTGAATA GATTGCATAC ATATAATCCG GTGGAACGTT TCGATTGGA TGAGGCGCTT	13560
CAAAGTTATA TGCATGGATC ATATGATGTA ATGTATACAC TTGATGCGAT GGAAGCAAAA	13620
GCGATATTAG CTCAAAATA TGATGTTAAG AAAAAATGGT TTAGAAAAAT AGAAAATTAT	13680
TACGTTCTGT ATACTAGACA TAATAAAGAT ACACATGCAG GAAATAAAGT CCGTCCATTA	13740
ACAGATGAAG AAGTAGCTAA CTTAACATCG TTAACTCAT TAATCGACAA CGACATCATA	13800
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ATGTTCTCTC CTGTATACGC AGCGCTAAGC AATTCGAAAG GTGCTCCTGG AGATATTATG	13920
TTTAGAAAAA TAGCTTATGA ATTACTTGCG GAAAAAGGTT ATCACAAGG ATTCTTACCT	13980
TATGTTTCTA ATCAGTACGG AGCAGAAGCA TTTGCCAGCG GAAGCAAAAC ATTCTCATCA	14040
TGCCATGGAA GAGATGTTGC TTTAGTGACA GATGATTAG TATTTAAGAA AGTATTCAAT	14100
GGTGAGTACT CATCATGGGC TGATTTCAAA AAAGCAATGT TTAACAACG TATAGATAAA	14160
CAAGATAATC TGAAACCAAT AACAATTCAA TACGAATTAG GTAATCCTAA TAGTACAAAA	14220
GAAGTAACTA TAACAACGGC TGCACAAATG CAACAATTAA TTAATGAAGC GGCTGCGAAA	14280
GATATTACTA ATATAGATCG TGCAACGAGT CATACCCAG CAAGTTGGGT GCATTTATTA	14340

1094

AAACAAAAA TCTATAATGC ATATCTTCGC ACTACAGATG ACTTTAGAAA TTCTATATAT	14400
AAATAAGATT GTAGAGTTTC ATTGTTGAGT AGTGTTCCTT GTAAGGATGA GGAGTCAGAT	14460
GACAAATCGA CTCCTTTTTC TTATGGATCG ATGTAGAGAT TTGATTGAAT GCAGATTGCA	14520
GGAATCATCT TCAACTCATC AACGACCAAT GGTGACAAGG TGGATTTCAT TCCCACAGAA	14580
AATGTTGATT TGAGAAATAA CTTTGCTAGT CTAGTAAAAT AAATACAAAA CAATCCTAGA	14640
AGATTTTTC TGGGATTGTT TTTTGCTGAG TGGGATGCTT CAAGTTGTCT GGCTTGACTT	14700
TCTTGAGGGA AGTTATATAA TAGTTGTAAT AATTAG	14736

(2) INFORMATION FOR SEQ ID NO: 172:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11770 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 172:

ACAGGAAAGC ACGATAGCAA TCTCTTTGGA AGATTTAAAA AATATTCCTC AAAGTTTCGC	60
TGTTGCTTAC GGTGATACGA AAGTATCTTC GATTCTCTCT GTCTTGCCTG CTAATTTAGT	120
AAATCATTTG ATTACAGACA AAAATACAAT TTTAAAAGTT TTGGAAGAAG ATGGGGATT	180
GACTTTTAGA GAGATTCTAG GTGAGTGAAA ATGATAGACT GATTCAGTTT ATCGTTTTC	240
TTTTTTAGTTG ATTGCACATT TGTGCTTATA TAAACAAAA TAGTTTATCT GTTGTTTT	300
GATTGACAAC TTTATTATGT AGTTGTATTC TATAGTTACA AAAGAAAATT TTTAAATTC	360
AAATGAAAA AGCTTTTAC ATAGTGAAAT GAGGAGGAAT TTATGGAAAT GATTGTTCCA	420
GATCAAAITA TCATGGGTTT AATTTTATAT GCTGGTGATG CGAAACAACA TATTTATAAA	480
GCGTTAGATT ACATAAAAA TGGTACATGT GAACGGTGTG AAGAAGAAAT ACAGTTAGCT	540
GATGCAGCCT TATTAGAAGC TCATAATCTA CAAACAAAAT TTTTGGCACA GGAAGCGTCT	600
GGTACAAAGA CAGAAATTAC AGCTCTCTTT GTTCATTAC AAGATCATCT CATGACCAGT	660
ATGACGGAGA TTAATTTAAT CAAAGAAATT ATTAGTTTGA GAAAAGAACT TCATAAAAA	720
TAATACTAGA GTATTATCAT TGTATTAAAC ATAGAGGAGG AAAACATAAT GGTGAAGATT	780
GGTTTGTTTT GTGCAGCAGG TTTTCTACT GGTATGCTTG TAAATAATAT GAAAATTGCA	840
GCGCAATCTA GTGGAGTTGA GGCAGAAATA GAGGCGTTT CTCAGTCTAA ATTAGCGGAT	900
TATGCGCCAA ATATAGATGT TGCACATTTG GGTCCACAAG TTGCTTATAC ATTAGATAAA	960
TCAAAAGAAA TTTGTGATAA GTGTGATGTT CCGATAGCTG TTATCCGAT GATGGACTAT	1020

1095

GGTATGTTAG ATGGGAAAAA AGTATTAGAT TTGGCCCTAT CTTTGATTAG TGGGTAAGAA	1080
AAGGAGATTT ATTATGTCAA AGATGGATGT TCAGAAAAATC ATTGCACCGA TGATGAAGTT	1140
TGTGAATATG CGTGGCATTG TAGCTCTAAA AGATGGGATG TTAGCAATTT TGCCATTGAC	1200
AGTAGTTGGT AGTTTGTCTT TGATTATGGG ACAATTGCCG TTCGAAGGAT TAAATAAGAG	1260
CATTGCTAGT GTTTTGGAG CTAATTGGAC AGAGCCGTTT ATGCAAGTAT ATTCAGGAAC	1320
TTTTGCTATT ATGGGTCTAA TTTCTTGTTT TTCAATTGCC TATCTTATG CTAAGAATAG	1380
CGGAGTAGAG GCTTTACCAG CTGGAGTTCT ATCTGTATCT GCATTCTTTA TTTTGCTAAG	1440
ATCATCTTAT ATCCCTAAAC AAGGTGAGGC GATTGGGGAC GCTATTAGTA AAGTTTGGTT	1500
TGGAGGCCAA GGAATTATCG GTGCTATCAT TATAGGTTTG GTAGTAGGAA GTATTTATAC	1560
CTTCTTTATA AAGAGAAAAA TTGTTATTAA GATGCCAGAA CAAGTTCCAC AAGCTATTGC	1620
CAACAGTTT GAAGCAATGA TTCCAGCATT TGTAATTTTC TTATCTTCTA TGATTGTATA	1680
TATTTTAGCG AAGTCATTGA CTAATGGCGG AACATTCATA GAAATGATTT ATTCTGCTAT	1740
TCAAGTCCG TTGCAAGGTT TAACTGGATC TTTGTATGGT GCTATTGGAA TTGCATTCTT	1800
TATATCATTT TTGTGGTGGT TTGGTGTCA TGGGCAATCG GTAGTAAATG GAGTAGTGAC	1860
AGCTCTGCTT TTATCTAATC TTGATGCTAA TAAAGCTATG TTAGCCTCTG CTAATCTATC	1920
ATTAGAAAAA GGTGCACATA TTGTTACTCA ACAATTTTTA GATTCATTTT TAATTCTATC	1980
AGGTTACGGG ATTACGTTTG GTCTTGTAGT TGCCATGCTT TTTGAGCAA AATCAAAACA	2040
ATACCAAGCC TTAGGAAAAG TTGCAGCTTT TCCAGCAATA TTTAACGTAA ATGAGCCAGT	2100
TGTATTTGGA TTTCCGATTG TCATGAATCC AGTTATGTTT GTACCTTTCA TTCTTGTTCC	2160
TGTACTTGCA GCTGTGATAG TATATGGAGC TATTGCAACA GGTTCATGC AGCCATTCTC	2220
AGGGGTAACA TTGCCTTGGG GTACACCAGC TATTTTATCA GGATTTTGGG TGGGTGGATG	2280
GCAAGGAGTT ATTACTCAGC TGGTGATATT AGCGATGTCT ACATTGGTTT ATTTTCCATT	2340
CTTTAAAGTA CAGGATCGTT TAGCTTACCA AAATGAAATC AAACAATCTT AGAGGTATTT	2400
GTGTGTTACT GTTAAACTCA CACATTTGTG CTAAAAATTA GAGAGTTAAA ATTTTCTAG	2460
TTAAAAGCTT GAAAATTTCT ATAAAAATCG GTATTATATT TTCGAAAGAA ATAAAAATAT	2520
TTTCGAAAGA AAGGTGCTTA CGATGGTAAA TACAGAAGTA GCAAGAACA CAATCAAGAC	2580
AGAATATTTT GGCAGCCTTA CTGAAAGGAT GAACAAATAT CGAGAAGATG TTTTAAATAA	2640
AAAACCTTAT ATTGATGCTG AGAGAGCAGT TCTAGCAACA CGCGCCTATG AACGATACAA	2700
GGAACAACCT AATGTCCTAA AACGTGCATA TATGCTGAAA GAAATTTTGG AAAATATGAC	2760

	1096	
TATCTATATT GAAGAAGAAT CTATGATTGC GGGAAATCAA GCTTCTTCCA ATAAAGATGC	2820	
TCCTATTTTT CCGGAATATA CGCTAGAATT TGTTCTCAAT GAGTTGGATC TTTTGGAAAA	2880	
GCGTGATGGA GATGTTTTCT ATATTACAGA AGAAACAAAA GAACAACCTA GAAGTATTGC	2940	
TCCGTTTTGG GAAAATAATA ATTTACGTGC TAGAGCTGGT GCCTTATTAC CTGAAGAAGT	3000	
GTCTGTTTAT ATGGAAACAG GATTCTTCGG TATGGAAGGT AAGATGAATT CTGGAGATGC	3060	
TCACTTAGCA GTTAACATC AGAACTTTT GCAATTTGGT TTAAGAGGTT TTGAAGAGCG	3120	
GGCTCGTAAA GCAAAAGTAG CTCTAGATTT AACAGATCCA GCAAGTATG ATAAATATCA	3180	
TTTTTACGAC TCTATATTTA TCGTAATCGA TGCTATTAAA GTATATGCAA AGCGCTTTGT	3240	
TGCTCTTGCT AAAAGTTTAG CCGAAAATGC AAATCCTAAA CGTAAGAAAG AATTACTTGA	3300	
GATTGCAGAT ATTTGCTCTA GAGTCCCAT TGAACCGGCA ACTACTTTTG CAGAAGCTAT	3360	
TCAATCAGTT TGGTTTATTC AATGTATTTT ACAAATTGAA TCTAATGGCC ACTCTCTTTC	3420	
ATATGCGCGT TTTGATCAAT ATATGTATCC ATATATGAAG GCTGATTTAG AAAGTGGTAA	3480	
AGAAACAGAA GATAGCATTG TTGAACGTCT GACAAATCTT TGGATTAGA CAATTACAAT	3540	
TAATAAGGTT CGCAGTCAAT CACATACATT TTCTTCAGCA GGAAGTCCTT TATATCAAAA	3600	
TGTTACAATT GGTGGACAGA CTCGAGATAA GAAGGATGCT GTTAACCCAT TATCTTATTT	3660	
GGTATTAAAA TCAGTTGCAC AAACCCATCT ACCGCAACCT AATCTAACTG TACGTTACCA	3720	
TGCAGGTTTA GATGCTCGTT TCATGAATGA GTGTATTGAA GTGATGAAAC TTGGTTTTGG	3780	
TATGCCTGCA TTTAATAATG ATGAGATTAT TATTCCTTCT TTTATTGCAA AAGGAGTATT	3840	
GGAAGATGAT GCTTATGATT ACAGTGCCAT TGGATGTGTT GAAACGGCAG TTCCAGGGAA	3900	
ATGGGGCTAT CGTTGCACAG GTATGAGTTA TATGAACTTC CCTAAGGTTT TACTTATCAC	3960	
GATGAATGAT GGAATTGATC CGGCTTCGGG TAAACGGTTT GCACCAAGCT TTGGTCGTTT	4020	
TAAGGATATG AAGAACTTTT CTGAATTAGA AAATGCTTGG GATAAAACAC TAAGATATTT	4080	
GACACGAATG AGTGTATTG TTGAAAATTC TATTGATTTA TCATTGGAAC GAGAAGTTCC	4140	
TGATATTCTA TGPTCAGCAT TGAATGATGA TTGTATTGGT CGTGGAAAAC ACCTTAAAGA	4200	
AGGTGGAGCA GTATATGATT ATATATCAGG ATTGCAAGTT GGAATTGCAA ATTTGTTCGA	4260	
TTCATTAGCT GCAATTAAAA AATTGGTGTT TGAGGAAGAA CGTATAAGCC CAAGTCAGCT	4320	
TTGGCATGCA CTGGAAACAG ATTATGCCGG AGAAGAAGGT AAGGTCATTC AAGAAATGTT	4380	
GATTCATGAT GCACCTAAGT ATGGTAATGA TGATGATTAT GCTGACAAAT TGGTTACTGC	4440	
TGCTTATGAC ATTTATGTTG ATGAAATTGC TAAATATCCT AATACACGTT ATGGAAGAGG	4500	
GCCTATTGGA GGAATTCGTT ATTCAGGAAC ATCTTCTATC TCAGCCAACG TAGGGCAGGG	4560	

1097

ACGTGGAACA TTAGCAACTC CAGATGGACG CAACGCGGGT ACACCGTTAG CAGAGGGTTG	4620
TTCACCATCA CATAATATGG ATCAACACGG CCCTACATCT GTTTTAAAT CTGTTTCAAA	4680
ATTACCAACA GATGAAATCG TAGGTGGGGT TCTCTTAAAT CAGAAAGTAA ATCCTCAAAC	4740
GTTAGCCAAA GAAGAAGATA AATTAAACT AATTGCTTTG TTACGAACAT TCTTTAATCG	4800
TTTACATGGG TACCATATTC AATACAATGT TGTTTCCAGA GAGACGCTGA TTGACGCTCA	4860
GAAACATCCT GAAAAACACA GAGACTTAAT TGTTTCGTGT GCAGGATACT CTGCATTCTT	4920
CAATGTTCTT TCTAAGGCAA CCCAAGATGA CATTATAGGA CGTACTGAGC ATACTTTGTA	4980
AAATAAGAG GTTCTTTTTA TGGAATTTAT GCTTGACACA TTAAATTTAG ATGAGATTAA	5040
AAAGTGGTCT GAAATTTTGC CGCTAGCTGG GGTAACCTCA AATCCCACTA TTGCAAAAAG	5100
AGAGGGTTCT ATTAATTTT TTGAACGAAT CAAAGATGTA AGAGAATTGA TTGGCTCTAC	5160
ACCTCTATT CATGTCAGG TGATTTCTCA AGATTTTGAA GGCATCTTAA AGGATGCTCA	5220
TAAATTCGA AGACAAGCAG GAGATGATAT ATTTATCAAA GTACCTGTTA CTCCAGCTGG	5280
ATTACGTGCA ATAAAGGCGC TAAAAAAGA GGGCTACCAT ATCACTGCAA CAGTATTTA	5340
TACAGTTATT CAGGGATTAT TAGCTATCGA AGCAGGAGCG GATTACCTAG CTCCATATTA	5400
TAATAGAATG GAAAATCTGA ACATTGATTC AAATCTGTC ATTCGTCAAT TAGCTCTTGC	5460
TATTGATAGA CAGAACTCTC CTAGTAAGAT TTTAGCTGCA TCCTTTAAAA ATGTAGCACA	5520
AGTAAATAAT GCTTTAGCTG CAGGTGCGCA TGCTGTTACA GCAGGAGCGG ATGTTTTTGA	5580
ATCAGCTTTC GCCATGCCAT CTATCCAAAA GCGGTTGAT GATTTTCTG ACGATTGGTT	5640
TGTTATTCAA AATAGTCGTT CCATTTAGAT AGAGAGGAAA TACATATGAG AATTTTGCT	5700
AGTCCTCTTA GATATATTCA GGGGAAAAAT GCCTTGTTTG AAAATGCCAA ATCAATTTG	5760
GATTTGGGAA ATTGCCCTAT TCTATTATGC GATCAGTTGG TTTATGATAT TGTGGA AAA	5820
CGATTTGAAG ATTACCTACA TAGGTATGGT TTCCATATTG TTCTGGCGCT ATTAAATGGT	5880
GAAGCTTCTG ACAATGAAAT CAATCGAGTT GTTGCCTTGG CTGAGAAAGA AAATGTGAT	5940
AGTATTATCG GTCTTGGTGG GGGAAAGACG ATTGATAGCG CAAAAGCTAT TGCAGATTG	6000
ATTGAAAAGC CTGTTATTAT TGCTCCAACA ATTGCATCGA CCGACGCACC TGTATCTGCT	6060
TTATCTGTTA TTTATACAGA TGAAGGTGCA TTTGATCATT ATCTATTTTA TTCTAAAAAT	6120
CCAGATTTAG TTTTGGTTGA TACAAAAGTT ATTTCAAG CCCCTAAGCG TTTATTAGCG	6180
TCTGGTATTG CAGATGGTTT AGCAACTTGG GTTGAGGCGC GTGCGGTTAT GCAGGCAAAT	6240
GGAAAACTA TGTGGGACA ACAGCAAACA TTGGCTGGAG TTGCAATTGC GAAGAAATGT	6300

1098

GAAGAAACGC TGTTCGCAGA TGGTTTACAG GCTATGGCAG CTTGTGAAGC TAAAGTGGTG	6360
ACACCAGCAT TAGAAAATAT TGTGAAGCT AATACTTTAT TGAGTGGTCT AGGTTTGGAA	6420
AGTGGAGGAT TAGCTGCGGC GCATGCAATT CATAATGGTT TTAGTGCATT GACAGGTGAC	6480
ATTCATCATT TAACACATGG TGAAAAAGTA GCTTATGGAA CTTTAGTACA ACTATTATTG	6540
GAAANTAGAC CTAAAGAAGA ACTTGATAAG TATATTGAGT TTTACAAAAA AATTGGTATG	6600
CCAACAACCTC TAAAAGAAAT GCATTTGGAT CAAGTTGGAT ATGATGATTT AATAAAAGTT	6660
GGTAACAAG CAACTATGGA GGGTGAGACA ATTCATCAGA TGCCGTTTAA GATTTGCGCT	6720
TCAGATGTTG CTCAAGCTAT TATCGCTGTA GATGCCTATG TAAATTCAAA ATAAACAATA	6780
AGGACTACTG TTTTCCAAAT GGTAGTCTTT TATTGATCCC TGTATTGAAT TCTATAGAAG	6840
ATTGAAATAG GATGAGAACA AATCGATTGG GAAAGTAAAA TTAATTTCTA TAAATGTTTT	6900
AGCAATTGTT TCGTACTATT TCAGATTCAG TCTACTATAT GTTCTTCATA AATCAAAAAG	6960
CGACATAGGT TGTCGGCTAT TTATTGTGAA TACATTAATT AGCATTCCAG TTTTATCTTC	7020
GGTCTAAAAT AAGTATTTTG TGCTATACGA GATAAGCTTC TTGACTTACT CCTTGATTTA	7080
CTGCATAACA ATGGGATAAA AAGTGGGAGA TAGAGCAATT CATAGTCATC AAAATTAATG	7140
AGATACAGTA TACAGTTTTT CCTTTAAACA CATTTCAAAT TCCCTCAAAA ATGGTATAAT	7200
AGTAACATCA CAAAATTGGA GAGAGACCAT GAGTTTTTAC AATCATAAAG AAATTGAGCC	7260
TAAGTGGCAG GGCTACTGGG CAGAACATCA TACATTTAAG ACAGGAACAG ATACATCAAA	7320
ACCTAAGTTT TATGCGCTTG ATATGTTCCC TTATCCGTCT GGAGCTGGTC TGCACGTAGG	7380
ACACCCAGAA GGTATACTG CAACCGATAT CCTCAGTCGT TACAAACGTG CGCAAGGCTA	7440
CAATGTCCTT CACCCAATGG GTTGGGATGC TTTTGGTTTG CCTGCAGAGC AATACGCTAT	7500
GGTACTGGT AATGACCCAG CAGAATTAC AGCGGAAAAC ATTGCCAACT TCAAACGTCA	7560
AATTAATGCG CTTGGATTTT CTTATGACTG GGATCGTGAA GTCAACACAA CAGATCCAAA	7620
CTACTACAAG TGGACTCAAT GGATTTTCAC CAAGCTTTAC GAAAAGGCT TGGCCTATGA	7680
AGCTGAAGTG CCAGTAAACT GGGTTGAGGA ATTGGGAACT GCCATTGCCA ATGAAGAAGT	7740
GCTTCCTGAC GGAACCTCTG AGCGTGGAGG CTATCCAGTT GTCCGCAAAC CAATGCGCCA	7800
ATGGATGCTC AAAATCACGG CTTACGCAGA GCGCTTGCTC AATGACTTAG ATGAACTAGA	7860
TTGGTCAGAG TCTATCAAGG ATATGCAACG CAACTGGATT GGTAAATCAA CTGGTGCCAA	7920
TGTAACTTTC AAAGTAAAAG GAACAGACAA GGAATTTACA GTCTTTACTA CTCGTCCGGA	7980
CACACTTTTC GGTGCGACTT TCACTGTCTT GGCTCCTGAA CATGAATTAG TAGACGCTAT	8040
CACAAGTTCA GAGCAAGCAG AAGCTGTAGC AGACTATAAA CACCAAGCCA GCCTTAAGTC	8100

1099

TGACTTGGCT CGTACAGACC TTGCTAAAGA AAAAACAGGG GTTTGGACTG GTGCTTATGC	8160
CATCAACCCT GTCAATGGTA AGGAAATGCC AATCTGGATT GCAGACTATG TCCTTGCTAG	8220
TTATGGAACA GGTGCGGTTA TGGCTGTGCC TGCCACGAC CAACGTGACT GGAATTTGC	8280
CAACAATTT GACCTTCCAA TCGTCGAAGT ACTTGAAGGT GGAAATGTCG AAGAAGCTGC	8340
CTACACAGAG GATGGCCTGC ATGTCAATTC AGACTTCCTA GATGGATTGA ACAAAGAAGA	8400
CGCTATTGCC AAGATTGTGG CTTGGTTGGA AGAAAAAGGC TGTGGTCAGG AGAAGGTTAC	8460
CTACCGTCTC CGCGACTGGC TCTTAGCCG TCAACGTAC TGGGGTGAGC CAATTCCAAT	8520
CATTCAATGG GAAGATGAA CTTCACAGC TGTTCCTGAA ACTGAATTGC CGCTGTCTT	8580
GCCTGTAACC AAGGATATCC GTCCTTCAGG TACTGGTGAA AGTCCACTAG CTAACCTGAC	8640
AGATTGGCTT GAAGTGACTC GTGAAGATGG TGTCAAAGGT CGTCGTGAAA CCAACACTAT	8700
GCCACAATGG GCTGGTTCAA GCTGGTACTA CCTCCGCTAT ATTGACCCGC ACAATACTGA	8760
GAAATTGGCT GATGAGGACC TCCTCAAACA ATGGTTGCCA GTAGATATCT ACGTGGGTGG	8820
TGCGGAACAT GCTGTACTTC ACTTGCTTTA TGCTCGTTTC TGGCATAAAT TCCTCTATGA	8880
CCTCGGTGTT GTTCCGACTA AGGAACCATT CAAAAAATC TTTAACCAAG GGATGATTTT	8940
GGGAACAAGC TACCGTGACC ACCGTGGTGC TCTTGTGGCA ACCGACAAGG TTGAAAAACG	9000
TGATGGTTCC TTCTTCCATG TAGAAACAGG GGAAGAGTTG GAGCAAGCGC CAGCCAAGAT	9060
GTCTAAATCG CTCAAGAAGC TTGTTAACCC AGACGATGTG GTGGAACAAT ACGGTGCCGA	9120
TACCCCTCGT GTTTATGAAA TGTTTATGGG ACCACTCGAT GCTTCGATTG CTTGGTCAGA	9180
AGAAGGTTTG GAAGGAAGCC GTAAGTTCCT TGACCGAGTT TACCGTTTGA TTACAAGTAA	9240
AGAAATCCTT GCGGAAAACA ATGGTGCTCT TGACAAGGTT TACAACGAAA CAGTCAAAGC	9300
TGTTACTGAG CAAATTGAGT CTCTCAAAT CAACACAGCT ATTGCCCAAC TTATGGTCTT	9360
TGTCAATGCT GCTAACAAGG AAGATAAGCT TTATGTTGAC TATGCCAAAG GCTTTATTCA	9420
ATTGATTGCA CCATTGAC CTCACCTGGC AGAAGAACTC TGGCAAACAG TCGCAGAAAC	9480
AGGTGAGTCA ATCTCTTATG TAGCTTGGCC AACTTGGGAC GAAAGCAAAT TGGTTGAAGA	9540
TGAAATTGAA ATTGTCGTCC AAATCAAAGG AAAAGTTCGT GCCAACTCA TGGTTGCTAA	9600
AGATCTATCA CGTGAAGAAT TACAAGAAAT CGCTTTAGCT GATGAAAAAG TCAAAGCAGA	9660
AATTGACGGT AAGGAAATCG TGAAAGTAAT TGCGGTACCG AATAAACTCG TTAATATCGT	9720
CGTTAAATAA CGAGTTTATT AGCTCTATCT GCCACCTTCA ATAGTCCACT GGACTATTGA	9780
AsCCCAACTAA ATTAGTTAAC ATTGTTGTGA AATAAGATAG GAGTCCTTCA GAGTAGAATC	9840

1100

TGGAGGATTT TTTGAATCTT CTTATGAAAG TATGATATAC TATGGGCAAC TATAAAGTTT	9900
GAAAAGTGAA ATAAGGAGAA TAAGATGCCA GTAAATGAAT ATGGTCAAAT GATTGGGGAG	9960
TCAATGGAAG CTTATACTCC AGGTGAATTG CCTTCTTTTG ATTTCTTAGA AGGGCGTTAT	10020
GCTAGGATAG AGGCTCTTTC AGTGGAAAAG CATGCGGAGG ATTTATTAGC TGTTTATGGC	10080
CCTGATACGC CTCGGGAGAT GTGGACCTAC CTCTTTCAGG AGTCAGTAGC AGACATGGAG	10140
GAATCGTCA GCCTTTTAAA TCAGATGTTG GCTCGTAAGG ACCGTTTTTA TTATGCAATC	10200
ATAGACAAGG CAACTGGTAA GGCTTTGGGA ACTTTTCCC TCATGCGAAT TGATCAGAAT	10260
AACCGAGTAA TAGAAGTGGG AGCTGTCCT TTTTCTCCAG AGCTCAGGGG GACACGGATA	10320
GGAACAGAAG CCCAGTATCT CTTGGCTTGC TATGTCTTTG AGGAGCTTAA CTATCGTCGC	10380
TATGAGTGA AATGCGATGC TCTTAACCTG CCATCCAGAC GAGCAGCGGA ACGTTTGGGA	10440
TTTATTTATG AAGGAACCTT CCGTCAGGCA GTGGTTTATA AGGGGCGTAC AAGAGATACG	10500
GATTGGTTGT CTATGATTGA TAAGGACTGG CCTCAAGTCA AAGCTCGATT GGAATATGG	10560
TGCGTCTCG AAAACTTTGA TAAAAATGGA CGACAGCACA AGAGCTTGAG AGAACTTTAA	10620
GAGGTGTTGA GATGATTACT ATTAAAAAGC AAGAAATTGT CAAGCTAGAG GATGTTTTGC	10680
ATCTCTATCA GGCTGTCGGT TGGACAAACT ATACCCATCA AACAGAGATG CTGGAGCAGG	10740
CCTTATCTCA TTCATTAGTA ATTTATCTGG CACTTGATGG TGATGCTGTG GTGGGCTTGA	10800
TTCTTTGGT TGGAGATGGT TTTTCATCAG TTTTGTACA GGATTTGATT GTTTGCCTA	10860
GCTATCAGCG TCAAGGGATT GGTAGCTCCT TGATGAAAGA GGCTTTAGGA AATTTTAAAG	10920
AGGCCTATCA AGTCCAGCTG GCGACAGAAG AGACAGAAAA AAACGTGGGA TTTTATCGTT	10980
CTATGGGCTT TGAAATCTTA TCCACCTATG ACTGTACAGG AATGATTGG ATAAACAGAG	11040
AAAAATAAAA AAACCTGTTT GTTCTTAAGC AAAGTTTAAG GATGGTCTAG TATCATATAG	11100
TCATTAAATA AAGACCTCCT AACTTTATTT AATAAAATCC TAAACTTTTT TCATCACAAT	11160
CTCCTAATGA AGCCACCCAA TCAGGTGGCT TTTTGGCGT ACGACGGGCA TGTCGTATAT	11220
CTGAGGTGTA AGTCCTCAGC CTGACTATCG TGAGGTAGCA GGGAGAGGAA GGGATAGCGA	11280
AATCGTGGCT CTACGAACAG GAACGTGATA GTAAGGCGTA TATAGCGGAT AAGGAGGCTT	11340
CAAACTCTAA AGTCCAAAAA GGTAGTCGTA ACCTATATGT GTAAATCACG AGAGTAATTG	11400
AATTCGGACT AAGGTTTGTG TGAAAAAGAT AAATCTTTCT AGAGTCTAAA GACTCTGCGT	11460
CAGATTTCTT ATTTTCACTG TAACCTTTTA ACGTCCTCAT ATCTTGATA AACGAGGAAA	11520
GATGTACGAC TTATCCCGTG ACGTTTCATG AGCGCTGAAA GCGTAGTAAC AACGAATCAT	11580
GAGAAGTCAG CCGAGCCCAT AGTAGTGAGG AAACCTCCGT AATGGAAGTG GAGCGAAGGG	11640

1101

GTGAATACTC AAACAGTCTG GGGAGAGACT GTTTGAGGTC TGTCGCTAGA AAGAGAAAAC 11700
GACAGATCGA AGTAATCCTA CTTCACTTGT GTCTGTAAAA TGAGTGGTCT GATAGAAGCTG 11760
GACTTTGAGG 11770

(2) INFORMATION FOR SEQ ID NO: 173:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4185 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 173:

CGCGAAACTA CTTTCTTAGT ATAACACTTT CAGAATCATT GTCAATAGAA ATGACTTGAT 60
TTTTTCAATT TTTTCAAGCT ATTTCCAAGG GTTGTAAAT CGTCCCTGAT TCTGCAAGAT 120
AAGTAGTAAA CTAATACTA AAAACAAGGT TGCCAAGAGC AAGGTAATAT AGTCTCCTTT 180
TTTCAAGGCC TGATAACTAT ACCATGTGCG TTTTCTCTCT TTCCCAAAGC GCGAACTCC 240
ATGGCAGTCG CAATGGTATC AATGCGTTCT AGCGAGCTAA AAATCAAGGG CGTAATAATG 300
AGCAGATTGC CTTTGATTGC TTGCATAAGA GAAGCTTTCT TGGATAATTC CATCCCACGC 360
GCCTCCTGAG ACATCTTGAT AGTAAAGAAT TCTTCCTGCA AATCTGGAAT ATAGCGCAAG 420
GTCAGGCTGA CAGAATAAGC AATCTTATAG GGCACACCAA TTTGATTAA ACTGGAAGCA 480
AACTGACTAG GATGGGTTGT CATCAAAAAG ATAATAGCCA GAGGAATGGT GCAAAGATAC 540
TTAATGGCCA AATTTAGCAG ATAAAAGAGC TCCTGGCTGG TTAGAGTGTA GACACCGATT 600
CCCTGCCAAA TCACACTTCT CTCTCCATAA AGTCCAACCC CATACTCGGG AGAAAAGAGA 660
TAGACCATCA AAACGTTTAA AACGGCAAAT ATCGTCGCAA AAACGGCTAC AAAGGAAACA 720
TCTTTAAAGC GAATTTCTGA TAAATAGAGG AGAAAGACTG AAAAGATGGC AATCAGCAAG 780
AGCATCTCGG TATCATAGCT AATCATGGCC GCCAATGATA CCAGAATGAA AAAGAGAAGT 840
TTCCCAGCTC CTGACAAGCG ATGAATCACA GTATCTCTAT GCTGGTAACC GATTAATTTA 900
GCTTGCATCC CTCTCPCCTT TCTTTGTAAA ATGCCGTTAA ATCCAGTGGA TCCACATCTA 960
GTTTCTTAGC CAAGTTAAAG ATGGAGGTTT CTTTGTAGATT GGCTTTTACT AACAGCTCAG 1020
GATCGCTCAA CAGACTGGCT GGAACAGTAT CGGCAATCAA TTCTCCATCC ACCATGACAA 1080
GGACCCGGTC TGAATAATCC AGCATCAATT GCATATCATG GGTAATCATG ACAATGGTAT 1140
GCCCTTTTTC ATGTAACCTC TCGAGAAATT CCATAATCTC AGTATAGTTC TTCTGATCTT 1200

1102

GACCTGCAGT CGGTTTCATCT AGGAGAATAA TTTCAGCTCC TAAGACCAAA ATTGAAGCAA	1260
TGGTGACACG TTTTCTCTGA CCAAATGACA GGGCAGAAAT AGGCCAATTA CGGAATTCAT	1320
AAAGTCCACA GATTTTCAAG GTTTCATATA CTCTCGTTTC AATTTCCCTC TCATCCACAC	1380
CTCGCAAACG GAGCCCTAGA GCCACCTCAT CAAAAATCAT ATTGGTTGAA ATCATTTGAT	1440
TAGGATTTTG TAGCACATAT CCTACTCGTT CCGCCCGCTC TGCAACAGAA TCGCCTTTTA	1500
TATCCTGTTT TTCCCAAAGA TAGCGTCCTT CCGTCTGAAT AAAGCTACTT ATAGCCTTGG	1560
CTAGAGTTGA TTTCCCTGCT CCATTTTTC CGACAATAGC AATCTTTTCA CCCTTTTAA	1620
TATCTAAATG TAGGGATTTT AAAATCGGTC TATCATCATA AGAAAAAGAT ACTTCCTCTA	1680
GTCTAAAGAG TGACTGCAAT GCTGGGGTTT CTTTGGCCAG TTCATTCTGC AACTGAACCT	1740
GACCTTTTGA GATAGACAAG TTATCCAGAT TCGCTAATTG TTCTTCCTTG ACTAAGTCCA	1800
CACCTAATG ACGGAGAGTC GTTAGATAAA GGGGTCTCG AATTCATTT TGAGTCAATA	1860
AATCAGTCGC AAGCAACTGG TCAGGGCTCC CATTA AAAAG GATACGACCA TCGTTTATCA	1920
AGACAATCCG ATCCACAGGG CGATGCAGAA CGTCCTCCAA ACGGTGCTCG ATAATAAGAG	1980
TCGTCTGCC CTCTTCCTTA TGAATCTGGT CAATCAATTC GATAATATCC TGACCTGACT	2040
TGGGATCTAG ATTGGCAGT GGCTCATCAA ACAAGAGAAT CGGACTTTCA TCAATCAAGA	2100
CACCAGCCAG ACTGACTCGC TGCTTTTGTC CACCTGACAA ATCCTGAGGA CGCTGATCCA	2160
GTAAAGGAAG AAGGTCCAGC TTTTCAGCCC ATTTATAAAC ACGACCTTTC ATCTCATCTA	2220
GGGCTGTAC ATCATTTTCC AGAGCAAACG CCAAATCTTC TGCCACAGAC AAGCCAATAA	2280
ACTGCCATC TGTATCCTGC AAAACTGTGC TAACCAGATG AGACTTATCA TAGATGCTCA	2340
TATCAAAGGC TACTTGACCC TTTATCAAAA ATTCTCCATA TGTCTGACCC TTGTAAATAT	2400
TGGGAATAAT CCCATTCAAA CACTGACCCA AGGTAGATT ACCTGACCCA GATGGTCCAA	2460
CAATTAAGAC TTTCTCTCCC TTGTAAATGG TCAAGTCTAT CCCTTGCAAG GTCGGTCTT	2520
GTTGTGTTTC ATACCGGAAA GAGAAATCCT TCCACTCAAT TaTAGCTTCT TTCATCTTAC	2580
TCTCTTCATT CGCTTCTTAG ACTTCTATTT TATCATAAAT CAAGCCCTTC TTGCAGTCTC	2640
TCCTCTTAAA ATCTTAGCGC CAAAAAGATT CCTATCCTAG CTTACTTGCC TAACTAATCT	2700
ATAAACATCG AAAAAGACTA GTTGCCGAGC CTTCCCATC ATTTTATACT CTTGAAAAAT	2760
CTCTTCAAAC CAGCTCAGCT TCGCCTTGCC GTAGGTATGG TTAAGTACTT CGTCAGTTTC	2820
ATCTACAACC TCAAAACCAT GTTTTGAGCC TGCTTCGTCA GTTCTATCCA CAATCTCAAA	2880
ACACTGTTTT GAGCAACTGC GGCTAGCTTC CTAGTTTGCT CTTTGATTTT CATTGAGTAT	2940
TAGTCCTTTT TCAAACCTCC TGCACGAGTT TGGGTCTCTG CATAGGCAAG TAAGAGAAGA	3000

1103

GTTCTGCAA TAGCTACAGA TACACCATG GCAATTCCTG CAACAATCCC TTGTGCAAAT	3060
ACTTTTCTG CCGCTTCTG ATAAATCACA ACATCTCCAA GTGGTGCCAA GACACCCCAA	3120
ACAAGGGCAT TTGCAAGTAG TTGAATGAGA TTAATAATAA GAATATCTTT CCAGTCAAAA	3180
ACACCATGA TCACGCGAAC GTACTTTCTA AAAAGTCCCA CAACTAAACC AAAGAGTCCG	3240
CTAGCGATAA TCCAAGTCCA CCATAGACCA TAACCAACAA GAGAGTCCTT GATTGCATGA	3300
CCAATCAACC CGACAAGCAA ACCGATAATC GGTCCAAAA TAATAGAAAG TAGCGCTTGT	3360
ACCGCATACT GAAGCTGGAT GCTTGTATTT GGAACAGGGG TTGGAATGTT GATCATCCCG	3420
ATGACGACAA AGAGGGCAGC GCCAATTCCTG ACAGCAACAA CTTGTTTAAAT TGTAAATTG	3480
ATTTCCATAC TATCTCCTA TTTTATCCTT CTATTTTCTT TATTTCAATG GTCCAAGATG	3540
AACCGACACC TACATTATAG GCCTTGGCAA AGGAACCTTG GTTGATAGCC AAACCTAAAC	3600
GATAGAGAGA GTTGATGTAA AGGATGGGTT GCCCAATTCT CACATCTGCA AATGATTGTC	3660
CATAGACAAC CTGATTTTGA TAGACCAGCA TATCAGCATG ATAGATGGTC ACTTCAAAAC	3720
GATCACCAAA TTCTGGTTCC AGCTTGTAAT ATTCTTCCCG TGTGATAGAG GTCCAAAGCG	3780
AACCGAAACG CACATCCAGA ATATCAATGG CTCCTTCAC CAGATGATCT TCTATGATGG	3840
TCGCTACGAC TGAAGCTCT ACAATCTGTT CCACACTGAG CTCTGGCCCT ACTTCCTCAA	3900
AAGTAATGTG ACCACTGGCC AGTTTAGCAC CAGTATAGGC ATAGACATCA CGACCGTGA	3960
AGGTATAAGA ATGCTCTGTG TTTTGACGCC TATTGGCCAC CTCAGAAATC TCACGAATGG	4020
CTACAATGCC AACGTGTTTC TTGATAAAGG AAAGCGTCCC ATTATCTGGC GTGACAATGT	4080
ATTGATTTTT TGCAGTCTTG GCAACTACAC TCTTACGTTT CGAACCGACA CCTGGATCGA	4140
CAACCGATAC AAACGTCGTT CCCTCAGGCC AGTAATCCAC CGTCT	4185

(2) INFORMATION FOR SEQ ID NO: 174:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 174:

TGATAGAGTT AAAGCCGCTG AGTCATTCAA TCCATCTCCA ACCATCAAAA TAGTGTGACC	60
TGCTTTCTGC AGTTTCTCTA CTAACCTCAA TTTCCTCATCA GGTTCAGT CTGTATAGAC	120
CTGATCAAAG GGCAATCTT TGAATAATTC CTCTGTCCTA ATCAAGGTGT CTCCTGTTGC	180

1104

CAGAATCAAT TTTTCCCCCT GTGCCTTAAG TTTATCCAAG GCTGTTTTTG CTTC'TTTTCT	240
CAAAGGAGTA TGAATGCAGA ACATTCCAAT CAATTCATTT TGATAAGCCA AGAATAAGAG	300
ATTGTAGTGA CTCTTGTA CTTCATTAAG AGCATTTTGT TCTGAACTGA TATGAATCTG	360
CTCATCCTGC ATCAAGACAT AATCCCAAT AAGAACTGGT TGGCCATCTA TATGAGATTT	420
GATCCCCCTG CTTCGCATAT ATTGGAGTTT CCCATGCATT TCCTCATGTT CAATCCCTC	480
TATCTCAGCT TGCTTGACGA TGGCATTAGC AATAGGATGA TAAATGTGTT CCTCAAGACA	540
GGCACTGATT CTGAGAATAT CTTCCTCACT ATAGTCTCCA AAAGGTAACA CCTTTTCAAC	600
TATAGGATAA CTAGTTGTGA TTGTTCTGT CTATCAAAAC AAGAAAGTAT CAACTTCCAG	660
ATATTTCTCC AGAACATCTC CATCCTTAAT CACCATTTC ACGTTCAACC CTTCCTTGAT	720
AACTGTCAAA TAAGCTACAG GAGTAGAGAT TTTCAAAGCG CAGGAGAAAT CGACCAATAG	780
GAAAGAAATA GCCTTAGAAA AAGAACCTGT CAATAGGTAA GTCAGCCCAG CCCCCAAGAA	840
ATTATATTG ACGACTTTAT CCGCCATCTT GATGAAATAG CGTTGTTTCG TTTCTTGT	900
TTCTTCAGAT TTCTTCATCA ACTCAATCAG CTGTAAATA CGGCTGTCA TCTGATTATC	960
TGTTACACGA ATGCGTAAT CTCCAGTTTC TAATACTGTA TTTGCACAAA CCAAATCAGA	1020
CTCTCTTTT TCAACTGGAA AACTCTCTCC TGTCAAGGAA CTTCGTGTA CCATACCTAA	1080
ACCTGAAACT ACTTGTCAT CAAACAGAAT TTCATTTCT TGAGATAAGA TCAAGACATC	1140
TCCTATTGTA ACATCGGAAC TCTTGATACT AACCAACCGT TCGCCCTGTA CTAGGAATAC	1200
ATCGCTCTCT TTTGCAAGAA GACTCTGTT TAAATCTGTT GCAGTTTTT TCAAGGACCA	1260
CTGATCTAAA TGATTCCCA AATCAAGCAT AAACATGATA TTGCTAGCTG TCTTGGATTG	1320
GTTCATAAAC AAAGACAATA AATAGCCGA ACAGTCCAAG ACTTCCATCG TTAGTTCCTT	1380
ACGCGCTAGT GTTTGATAGG CTCTCTAAT ATAACCCAAA GCCTGATAAC AAGTCCATAT	1440
ATAGCGAATA GGATACGGCA CAAACTACG AAAAAGTACA CGCTTAACCG CTGCACCTGA	1500
AACAATAGAA TAAGCACTCT CTCTCTACG AATGGGAAGA GTCATCAACT CAGAACTTT	1560
CCCTTTATCA ATCTTTTTTA AAAAGGCTTC TGCATTATCT AATACAGAAA AGCCTTCTTT	1620
TATGCGTAGA GTAAAGTGCT GTTGATCCAT GTAAAACTGG ATAGACTCAA TCCCCTTTTC	1680
ATCTCTCGCC AAGGAACGAA GATAGTCTTG AATATCCAAG GTAAGTGAAA AAGAAGATGA	1740
TAGTCGGATA TGTGGTATC CTCTATGTAG CACTTTAAA GACATATTAT TCACCTATAA	1800
GGCTATCTAA TTGCTCTTCT TTTTCTCTT GCTCGTACAA ATATTTGGCA TCTTGCAAGA	1860
CATCGTCTCC ATGTTGCTTC ACAACAGAAA CAGATGCATC TAGCTCGTCT TCAACTTGT	1920
AAGCCTTAGC CAAAGCTTTA GAATAACCTT TTTTAGCTTC CTTACTTGCT AAGATTTTCA	1980

1105

AACCAAGGGT ACCAAATGCG ACACCACCCA AAAATAATGA AGATTTTTC GCAACTTTTG 2040
 CAACGGTTAA TACTTCTTTT AACATAGGG 2069

(2) INFORMATION FOR SEQ ID NO: 175:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4597 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 175:

AAATCTTGCG CAATAAAGCT CATCTCCATC TCCCGATTGA AACAGTCACT CCCCGGACTG 60
 TTTCAACGTC CCAAGACATA ATCTTAGGCA GATTTCTAAA ATTACACTCA AAGTGAAGT 120
 CATTGAGCTT TCGAATGACA GTTGAAGTTG AAATGGCCAG CTGATGGGCA ATATCGGTCA 180
 TAGAAATCTT TTCAATTAAC TTTTGCGCAA TCTTTTGGTT GATAATACGA GGAATTTGGT 240
 GATTTTCTT GACGATAGAA GTTTCAGCGA CCATCATTTT CAAGCAATGA TAGCACTTAA 300
 AACGACGTTT TCTAAGGAGA ATTCTAGTAG GCATACCACT CGTTTCAAGG TAAGGAATTT 360
 TATAGGGTCT TTAATGTCTA GTAATTTTGT GATAAAATGT AATGTTTCCA TATGATTCTT 420
 TCTAATGAGT TGTTTTGTG CTTTTCATTA TAGATCTTAT GGGACTTTTT TTCTACCCAA 480
 AATAGGCTCC ATAATATCCA TAGGGAATTT ACCCACTACA AATATTATAG AGCCCAAAGT 540
 TTTAGGTCGC TTGATAATAT GCGTTTTTTG AATTTTATAG ACTGCTCGTT TAAACTCTAT 600
 TTACTTCGTA CCTTCTGGAG CGAGACGGAA TATTAGTCAC ATACAAAATG AGTACTATTA 660
 GGATTTTATT TTCATGTACA ATTTTCAGCCA GTCTTGTTAT AATCAGCCTA TAGGAATCAA 720
 GGAGGTGACT CTTATGGCTG TTTTGTGTC TTTGGATGGA ATTGTGGTAG AAGTCCTTGA 780
 TGTCTTTTCT TCTTTTAATG GGGATAGTGA GTTTTCTTG TGTATAGCAT TTTGAATCTG 840
 GAATAGGACG CCATGACTGC TAAAAGATTT CTATAAATTA ATTTGATTTT CCTAATCAAT 900
 TTGTTTATAT CTTATTTTAT TCCACTATAA ACGTCTTAAA GACAAGAGTC AGTTTGTAT 960
 GGAACGCTCT CAGTTCGAGG AGATGTTCCA ACTTCAAAGT AGTCGCTTGA CGACGCAAGA 1020
 AAAATTACAA TTGTTTACCT CTGTGTTTGC TGGCCGTTAT GATGTTTATG CTAAGAATTT 1080
 TATCAATGAA CAAGGGAAAA TTCAGTATTT TCCTTCCTAT GATTATGGTT GGAAGCAGTT 1140
 GCCACCTGAA AAACGGAGTT TCCAGACATT GACGAACTCC GTTTTGAAAT CTCATTTTCG 1200
 TGGGGAGGCA GCTATCGGTA TCTTTCCTAT GCACTTAGAT GATAGCTGTT ATTTTGTGGT 1260

1106

ACTGGATTTG GATGAAGGAG ATTGGAAAGA AGCTGGTTTA ACCATTTCGAA GAATAGCCAG	1320
GGAACGCCAG ATGGAAGCCC ATTTAGAGAT TTCTCGTTCG GGTACGGAC TCCATATTTG	1380
GTCTTTCTTT GAGGAAGCGA TTCCGAGTCG AGAGGCTCGC TTGTTTGGAA AGAACTGAT	1440
AGAACTGGCA ATGCAGGAAA GTATGCAACT GTCCTTTGAT TCTTTTGATC GCATGTTTCC	1500
AAATCAGGAT GTCCTTCCTA AGGGGGGATT TGGAAATTTG ATTGCCTTGC CTTTTCAAGG	1560
AGAAGCTTAC CATCAAGGGC GAACGGTCTT TGTGGATGAA CAGTTTCAGC CTTATGAAGA	1620
CCAATGGAGG TATCTACAAG AAATTCAGAG GATTTCAACT GCTAAAGTGG CACTGTTAAT	1680
CCAAGAGGAG TTAGGCAAGC AAGAATTGGA TAAGGAGTTG AAGGTCGTTT TATCCAATAT	1740
GATCCAACCTT GAAAAATCGT CTGTGACATC CAAGGCACCT TTTTCTTGAA AAATATGGCT	1800
TCCTTTTCTA ATCCCGAATT TTATAGTAGA TTGAACTAG AATAGTACAC CTCTGCTTCT	1860
AAAACATTGT TAGAAATCGA TTTGACTTTC CTGATCGATT TGTCTGTGTA TTATTTTCATT	1920
TTACTATATT TAAAGCAGGC TATGCGACAG CCAACCTATC AAATTCCTGA GAGAATGTAT	1980
TTATTTGGAG AATCCGATCA TTATTTATGG TTGCCAAGAG GTTTGCTGTA TCCATTGCAA	2040
GATAAATTTA AGCAGGTATC TGTGGAAGAT AGGAGAAAGG TACAAAGGTC TATTAGCGTG	2100
GAATTTAAGG GAGAACTCAC TTTTGAGCAA GAGTTAGCCC TGTCAGATAT GACTTCTAAA	2160
GAAAATGGTT TACTTCATGC GGAGACTGGT TTTGGGAAGA CCGTTTTAGG TGCTGCTCTT	2220
ATCTCTGAAC GGAAAACAAA AACAATTATT CTAGTCCATA ATAAGCAACT CTTAGACCAA	2280
TGGCTAGATC GCTTAAACTG CTTTTTGACT TTCGAAGAGG AGGAGGCTAT CCGTTATACG	2340
GCATCAGGTC GTGAAAAGGT AATCGGCTAT GTTGGGCAGT ACGGTGGGAC TAAGAAATGG	2400
CTGAGTAAAC TGGTTGATGT CGTTATGATT CAATCTCTAT TTAAGTTGGA AAATAGTCAA	2460
AGTCTTTTGG ATGAGTATGA GATGATGATT GTGGATGAGT GTCATCATGT CTCTGCCTTG	2520
ATGTTTGAAA AAGTTGTGTC TCAGTTTAGA GGGAAGTATC TTTACGGTTT GACGGCTACG	2580
CCTGAGCGTA AGAATGGTCA TGAGCCTATT GTTTTTCAGA GAATTGGTGA GATACTCCAT	2640
ACTGCTGATA AGAGGGAAAC GGATTTTAAA CGGCAATTGC AATTAAGATT CACTTCTTTT	2700
GGTCATTGGG AATTGAAAA GACCAAAGCA AGTAATTTA TACAGCTTAG TGATTGGATT	2760
GCTACTGACT CAGTGAGGAA TCAGATGATT CTCAAGGATA TTCTAGCCCA AGTGGCAGAA	2820
GGACGGAATA TCTTGGTTTT AGTTAATCGA ATTCAACAGA TAGATGTCTT TGAAAAATTA	2880
TTGAAAGAGA AAGAGGTTGA TGAAGTTTAC ATTATTAGCG GAAAAACCAA AGTCCGAGAG	2940
AGAACGAGTT TACTGGAGAC GTTAGAACAG TTAGATAAAG GGTTTGTTTT GTTGTCTACT	3000
GGAAAATACA TTGGCGAAGG TTTTGACTTA CCTCAGTTGG ACACGCTTAT CTTGGCAGCA	3060

1107

CCCTTTTCTT GGAAAAATAA TTTGATTTCAG TATGCAGGTC GGATTTCATAG AAAC TACAAG	3120
GATAAGTCTT TGGTGCGTAT TTTCGATTAT GTGGATATTC ATGTTCCCTTA TTTAGAAAAG	3180
ATGTTTCAGA AACGACAAGT AGCTTATCGA AAGATGGATT ATCGTGT CAT CGAGGGTGAG	3240
GAGAAACAAT TCGTTTATGT TGATAGTAGA TATGAGAAGG TGTGAGAGA GGA CTTAGCA	3300
GGGGAAGAC AGGAATGTCT GCTTATTTTA CCTTATGTGC ACCAGACAAA ACTGATGAAT	3360
TTTCTAAAAG AATTTAGGAT TAGTCAAATT GAGATATGTA TACCAGAGAC GGTGCAAAT	3420
AAAGCATGGC TAGACCAGTT GAAGAGCCAG AAAATTAAAG TGTCTTTTAC TCAATCAAAA	3480
ATAGTAACGC CTATTCTTTT GGTGAATAAG ACTATTGTTT GGTATGGTGC AATGCCATTA	3540
TTAGGGAAGG TAGATGAGAT GACCATATTA CGTTTGGAAAT CAGCTAGTAT AGTTTCTGAA	3600
CTAGTGGCAG GTTTACGATA GAGAAAATTT TTA AAAATTT CTATGTATGA TTTTCATTT	3660
TTTAGTGAGA CTGTTGCCAT TATCACATTC GAATCACACA AAATAAAAAA ATTTTATATA	3720
GTACTTGACA AATAGATTGA AATATCATAA AATAAAAAACG GTTACAGAGT TATTAATTAT	3780
TTAAGCTTCA TGTCAACATT AAAAATTGAA ATAAAAGGAT GTTATCACTA ATACAAGTGA	3840
GCAGGAACCT ATTTAATCAC ATCAGAAGAA GTTCTTGAT GTTTTAAAGT AGGTTCTTTT	3900
TATTTTAAAA GGGAAATTTT ATGATCATAA AACGAATACT AAACCACAAT GCCGTAATTG	3960
CGCAAAGTAA AAAAGATATC GATATTCTTC TTTTGGGAAG GGAATAGCT TTTGGAAGAA	4020
AAACTGGAGA TAAAGTAAAT CCAATTGATA TTGAGAAAAG TTTTCTCTC AAAAATAGAG	4080
ATAATATGAC CCGTTT TACA GAGATGTTTA TTAACGTTCC TTTGGAGTTG GTGTACATCA	4140
CCGAAAAAAT AATTAACCTA GGTAAAATAA CATTTGGGTAA TAATTTTGAT GAAATTATCT	4200
ATATTAAATTT AACGGATCAT ATTTCTTCGA GCATAGAACG TTATAAAGAA GGGATTATTA	4260
TTTCGAATCC CCTACGCTGG GAAATATCGA AATATTATAA AGAAGAATTT GAAC TTGGGA	4320
AAAGGGCTTT ACAATAATA AAAAAAGAGT TAGGTATTGA ACTTCCAATT GACGAAGCTG	4380
CATTCATAGC GCTACATTTT GTTAATGCTA ATTTAGAAAA TAATTTTCAA GAGTCGTATA	4440
AAATCACTGA AATAATTATG GGAATTGAGA AAATCATTCA AGATTCTCTAT TGTACTGAGT	4500
TTAACCAAGA TTCTATTGAT TATTATAGAT TCATAACTCA TATGAAATTA TTTGCCCATC	4560
GCTTGGTTGA GAATACAACT TATTGTGACG ATGATGA	4597

(2) INFORMATION FOR SEQ ID NO: 176:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 3984 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

1108

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 176:

CGGCTTATTT ACTACTTGT CCATCATATA TGAATATGC ATGAAACCTG CTCTCATATT	60
AGGGAATTTT TTATCCACTA AATAAGAGC TTGGTACATC AAATGATTGC AAACAAAGGT	120
TCCTGCACTA TTGGATACAA CTGCCGGAAG TCCCTGTTTT TTGATAGCTT GTACCATCGC	180
TTTGATAGGT AAACACTAA AATAGCCGA TGCTCCATCA ATACGAATCG GTGTATCAAT	240
TGGTTGATTG CCTTCGTAT CAGGTATGCG AGCATCATCT TGATTAATAG CCACTCGTTC	300
AGGTGTTAAG CCGGTCTGC CGCCTGCTTG TCCAATACAA AGTACAGCAT CTGGTTGATA	360
TGTAATATT TCTGCCTCTA AAACCTCTGA CGACTTATAA AAAACCGTTG GAATTTCTAC	420
CCAGCGAACT TCAGCCCCAT TAATCTCAGA TGGTAATAAT TTTACAGCCT CCAAAGCTGG	480
ATTAATCTTT TCACCTCCAA AAGGATTAAC ACCTGTAACC AATATTTTCA TTTTATTTTC	540
CTTTACTAAA ATGCGAGAAA GTACATTAAG AATATGTGAA TAACAATCAT TACTAGAGCA	600
ACACCTGCTT GAGCCTTTAT AACGCCATTC TGATCTTTCA TATCCATCAA TGCTGCTGGT	660
AGAGCGTTAA AATTAGCAGC CATTGGGGTC AATAAGGTCC CACAATAACC TGCTGTCATG	720
GCAAGAGCAC CAGCCACAAT TGGATTAGCT CCCAGAGCAA ATACAAAGGG AACTCCAACA	780
CCTGCTGTAA TAACGGTGAA TGCTGCAAAA GCATTTCCCA TAATCATTGT GAATAGAACC	840
ATTCCAAGAA CATAGGCCAA AACTCCTATA AAGCGACTAT CTGAAGGAAC AATACCGCTA	900
ATCAGATGAG AGATAACATC ACCAACACCT GCTACAGTAA AAATAGCCCC CAAAGCCCCCT	960
AATAATTGAG GAACAATCCC ACTTGTGAA ACTTGCTGAG TCATTCGATT ATTTTCTGAT	1020
AACAGACTCT TAGGGTGACT ATTGGTAATC ACAAGAACAG AAATTGTAGC AAACAAGGCG	1080
GCAAGGCTAA TCGAAATCTT GCTAAATCTT GGAATCATTT GCGCTAAGAC CAACGCAAGT	1140
ATTGCCATCA GCATAACTGG AATAAAAATT TTATTTTCA ACCTGTTAGA TTCAATATTG	1200
GCTTTCATTT CATCTAAGGA TGGCAAGGTT CCGATACGGA CTGCTTAAA CAATGTTAAC	1260
AGCGATAATA GGATTACAA AATACCAATA CTCATATTG GCATATAGGA ACCACCTATA	1320
AACGTAATAG ACAATAGAGT CCAAAATGCA GATGTCCCAA GTCGAACTGG GTTTGTTTAA	1380
TCTTTATAAC TACAATAGGC TGTATGGAGA AATTGACAAC CAATCACAAT ATAGGTCAAC	1440
TCTAATAGTT GCTTTGCCAA CTCTGTCATT TTTGTTCTCC TCCCCTAGTC TTTTGTGATA	1500
TCAATTTTT ATCAAATAA TAATTATAA TCCCCACTAC AATAAGTGTT ATAACAGCAA	1560
CAATAATAGA TGTAGAAGCA ATCCCTGCAT AATTGCTTTC ATAGCCTAAC TGATCTAATG	1620

1109

TTCCCCCTAT CAAGAGGACT CCCCCAGCAC CTACAAACGT ATTTTGAGCA AAGAAATTTC	1680
CAAAATTTTC ATTCGCAGCC GCACGCGCTT TTATTGTCTC ATCTTCAACC TCTGTAACT	1740
TTCTACCTAA TTGAGACTCT GCAGCTGCTT CTCCCATAGG TTGAACCAAA GGTCTGACAA	1800
ACTGAGGGTG TCCTCCTAGA CGAATTGAAA AGAAACCAGC TAACTCTCGA ATAAAGAAAT	1860
AAACTGTATA GAAGTTTCCA ACTGTCAGAC CTTTAATCTT TCGAATCAAA TCGATTGATC	1920
GTTGCTTGAG TCCAAAGGTT TCTGACAGCC CCACAAGAGG CAAGGTAACC ATAAAAATCG	1980
TGAGCACTCG CTGATTGCTA AATTCCTTTC CAAAATCTC CAAAATTC ACGAGAGAAA	2040
CACCTGAAAC TAAAGCTGTA ACCAAACCAG CTAAGACTAC TGTGCAATT GTATCAAATT	2100
TTAAATATA ACCCACACA ATGATTGCTA TTCCTATTAA TCTAATCCAC TCCATATCAA	2160
ACTCCTTTAT ATTCAAATG ACAGTATTTT TAAAATTTTA TCAAGATCAA TACCATTCTT	2220
TATTTAATGT GTTTTCTAG TTCTTTTGG TATTGTCTAT TGGATTCCAA TTTTCTTTT	2280
TGCCATTTTT TAAAAACCTC GTTATATTCT TTTGTTGTAA CAATATCTTT TTGCAATTC	2340
ATTCTTTTAA AGATATATGG ATCCCCCTA ATACCAACTT GTGAGTATGG TTTTGAGAA	2400
GGTACTACGT TACTTACAAC TGGAGAACCA CCAGATGAAG CTGTTGGCAT CAATAATGAA	2460
CTATCTGTCG ACCAAGCTTG AGCTTTGGCA TATTTTTCAT ATCTTTTCTC TAGGTCAGTG	2520
GTCTCAGAAA CAGCATCTTC TAACAATTC TTATATTAT CCAAACCAGG TTTAGCTACA	2580
ACATCCTTAT CTTTTCCTT CGTAATACCA AGGTGTTTCA TGGCAGAACC AGATTTTGA	2640
TCTATAATAT TCAAGTGAGA CGCTGGATCT TGATAGCTTG GAGCCCATCC TGTACTGTT	2700
AAATCATAGT CTTTTTGAGA AGGAGCAACA TTGCCGTATT TATCATTTTC CATCAAACCA	2760
TCAATAACAT TTCCAATAAC GTCTGTCTC GATGTTTCAG TCGCTATACT GTAGCCCAAT	2820
GATGCTGGAT CTAATGCATA GACATAAGAA AATGTTGTCG GTGCATCTGC TTCTTTATCA	2880
GTTTTTCAC AAGCCACTAA AATAGCTGAC GTGCTCAGGA CCACTCCTGC TGTTAAGAGC	2940
CACCTTTTCT ATTTCAATAA GAATCTCCTT TGGTTTATTT TAATCTACTT TTACAATCCA	3000
ACCTTCTGGC GCTTCAATAT CGCCAAACTG AATACCCGTC AATTCATTAT ATAATTACG	3060
CGTCACAGGA CCTACTTCTG TTTCCTATA GAATACATGG AAATCATCAC CATGTTGAAT	3120
ACCTCCAATT GGAGAAATAA CCGCTGCTGT ACCACAGGCA CCTGCCTCTA CAAAACGGTC	3180
AAGATTATCA ATTGGAACAT CACCCTCAAT AGGAGTTAAT CCAAGCGAT GTTCTGCCAA	3240
ATAAGCAAG GAATACTTGG TAATAGATGG CAAGATAGAT GGACTCAATG GTGTTACAAA	3300
TTCAATTATCA GCTGTAATTC CAAAGAAGTT AGCTGATCCG ACTTCTTCAA TCTTTGTATG	3360

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AGTTGATGGG TCCAGATAGA TAACATCTGA GAAATGACGT GACTTGGCCA TTTTTCCTGG	3420
TAAGAGACTT GCAGCATAGT TTCCACCAAC CTTAGCCGCA CCTGTACCAT TTGGTGCTGC	3480
ACGGTCGTAC TCATCCTGAA TCAAGAAGTT GGTGGGACC AAACCACCTT TAAAGTAATT	3540
TCCAACTGGC ATAGCAAAGA TGGTAAAAAT GTACTCTTCT GCCGGTTTTC CCCCATAAT	3600
ATCTCCGACA CCAATCAAAA GAGGCGAAG ATATAAGGTT CCACCTGTTC CGTATGGTGG	3660
TACGTATTCT TCATTGCGAC GGACAACCTG TTTACAAGCT TCTACAAACA TGCTGTCTCG	3720
AACTGTGGC ATCAAGAGAC GGTCAATGT ACCTTGCAGA CGTTTAGCAT TTTCATCAGG	3780
ACGGAACAGT TGAACACTGC CATCCTTAGT ACGATAAGCT TTCAAACCTT CAAATGCTTG	3840
TTGTCCATAG TGAAGACTTG GAGAAGACTC TGAAATATGC AAAGTTGCAT CCTCTGTAAG	3900
CTCTCCTTGA TCCCATGTTC CATTTTGAAT ATGAGCAAGA TAGCGATAAG GTAATTTTCAT	3960
ATAGGAAAAA CCGAGGTTT CCGG	3984

(2) INFORMATION FOR SEQ ID NO: 177:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8703 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 177:

TATCTAATTA TTGGTTTTTA TCGCTGACCT TGGCTATTGT TGGGGTTGTT TTACCCTTGT	60
TGCCTACAAC ACCTTTCCTT TTGTTGTCTA TTGCTTGTIT CTCCAGAAGT TCCAAGCGAT	120
TCGAAGATTG GCTTTATCAT ACCAAGCTCT ATCAAGCATA TGTAAGTGAT TTTCTGAGA	180
CCAAGTCTAT TCGCGTGAA CGAAAGAAAA AAATCATCGT CTCTATCTAC GTCTTGATGG	240
GAATTCTTAT TTATTTTGCA CCTCTTTTAC CAGTCAAAAT CCGTCTGGGT GCTTTGACCA	300
TCTTTATTAC TTATTATCTC TTCAAGGTCA TTCCAGACAA AGAATAGTTA AAACAGTAGT	360
TATTTGCCCTT GATAAAATTG AAAGCATATT CATAACAATA TGATATAATA AAATTGAAGT	420
AATATTCAAG GAGAATCAAA TGATTTACGA ATTTTGTGCT GAAAATGTGA CTTTACTTGA	480
AAAAGCGATG CAGGCTGGAG CTCGTCGGAT TGAACCTCTG GATAATCTAG CAGTTGGTGG	540
GACAACACCC AGCTATGGAG TGACTAAGGC AGCGGTTGAA CTGGCAGCTA ACTACGATAC	600
AACCATCATG ACCATGATTC GGCCACGTGG TGGTGACTTT GTCTATAATG ACCTAGAAAT	660
TGCTATCATG CTAGAAGACA TTCGTTTGAC TGCTCAGGCT GGAAGTCAAG GGGTTGTATT	720
TGGAGCTTTA ACTGCTGATA AAAAGTTGGA TAAGCCTAAT CTGGAAAAGT TAATTGCTGC	780

1111

ATCAAAAGGA ATGGAAATTG TCTTTCACAT GGCCTTTGAT GAACTAAGTG ATGAAGATCA	840
AGCGGAAGCT ATTGACTGGC TCAGTCAAGC CGGTGTCCT CGTATCCTAA CTCGTGCTGG	900
TGTGTCTGGC GACTCCTTAG AAAAACGTTT TGTTCACTAT CACAGAATTT TGGAGTACGC	960
TAAAGGTAAA ATTGAAATTC TACCAGGTGG GGGGATTGAC CTTGAAAACC GTCAAACCTT	1020
TATCGACCAG GTGGGGGTAA CACAATTGCA TGGTACTAAG GTTGTTTTTT AAAAAATAGA	1080
AAGGAAGTGC TAGCTTTGGG TAGCAGTTTT CACTTATGTT TGAAATTTTT AAATCCTATC	1140
AATTTAATCA AGAAAAGGCT CATGATTATG GTTTTATAGA AAATAGCGAA GTCTGGACAT	1200
ATAGTTGCCA GATTTTGCAA GGTGACTTTG TCATGACTGT GTCCATCACT GCTGATAATG	1260
TGAAGTTTCA AGTCTTTGAC CAAGAGACTG GTGACCTCTA TCCTCACGTT TATATGGAAA	1320
GCATGAGGGG AAGTTTTGTC GGAAATGTCC GTGAGGCTTG TCTGGAGATT CTTTACCAGA	1380
TTCCGAAGGC TTGTTTTGAT GTGCAAGATT TTATCTGTCA TCAGACTAAG CGTATCATGA	1440
CTCAAGTTCA GGAAAAGTAT GGAAACCACT TGGAGTATCT GTGGGAAAAA TCGCCTGATA	1500
CAGCTGTATT GCGCCATGAA GGCAATCAAA AGTGGTATGC CGTCTTGATG AAAATCTCTT	1560
GGATAAGCT GGAAAAGGC AGAGAAGGAC AAGTGAAGC AGTCAACCTC AAGCATGACC	1620
AAGTAGCTAA TTTGCTTTCA CAAAAGGGGA TTTATCCAGC CTTCCATATG AGCAAGCGCT	1680
ACTGGATTAG TGTGTCCCTT GATGATACTT TATCAGATGA AGAAGTACTG GAATTGATAG	1740
AAAAAAGTTG GAACTTAACC TCTAAAAAT GAAATATTTT AATAATTTTC ATGAACTTTC	1800
AATTAGCTAA ATATTCTTTA CTGAAGAGAT TTTTAGAAAA TATAGGATTT ACCACACTAG	1860
AGGAATATGG TGCCATCTTC AAATACCTGA TTGAGATGT CAAGACGGAT CGTCAGATCA	1920
TCTATTGCCC TCACTGTCAAT GATGACCTCG GAATGGCAGT GGCAAATAGC CTTGCTGCTG	1980
TCAAGAATGG TGCAGGACGT GTTGAAGGGA CTATCAATGG TATTAGGGAG CGAGCTGAAA	2040
ATGCTGCTTT GGAAGAAAT GCAGTGGCTC TCAATATTCG CCAAGATTAC TACCAAGTAG	2100
AAACCACTAT TGTCTTAAAT GAGACCATCA ATACGTCAGA AATGGTTTCT CGCTTCTCTG	2160
GTATTCCAGT TCCTAAAAAC AAAGCCGTCG TTGGTGGCAA TACCTTCTCC CACGAATCTG	2220
GTATTACCA AGATGGAGTC CTTAAAAATC CTCTCACTTA TGAGATCATC ACACCTGAAT	2280
TGTTTGGTGT TAAGATTCTG CTTGGAAAAAT TATCTGGTCG CCATGCTTTT GTTGAGAAAC	2340
TGAGAGAATT GGCCTTAGAT TTTACAGAAG AGGATATCAA ACCACTCTTT GCTAAGTTCA	2400
AGGCACTGGT CGATAAGAAG CAAGAAATCA CAGATGCAGA TATTCGAGCT TTGGTAGCTG	2460
GAACCATGGT TGAAAATCCA GAAGGCTTCC ACTTTGATGA TTTACAACCT CAAACTCATG	2520

1112

CAGATAATGA CATTGAAGCG CTCGTTAGCC TAGCCAATAT GGATGGTGAG AAAGTCGAAT	2580
TTAATGCGAC AGGGCAAGGT TCCGTTGAAG CAATCTTTAA TGCTATCGAT AAGTTCTTTA	2640
ACCAATCTGT TCGTTTGGTG TCCTACACTA TCGATGCGGT AACAGATGGA ATCGATACCC	2700
AGGATCGGGT TTTGGTCACT GTTGAAAACA GAGATACAGA AACCATCTTT AATGCAGCAG	2760
GGCTTGATTT TGATGTGTTG AAGGCTTCTG CTATTGTCTA TATAAACGCT AATACCTTTG	2820
TTCAAAAAGA GAATGCAGGT GAGATGGGAC GCAGTGTTC TTACCACGAT ATGCCTAGTG	2880
TGTAAAGGAG AAGGCTATGG CAAAGAAAAT AGTAGCTCTA GCAGGAGACG GAATTGGCCC	2940
AGAAATCATG GAGGTTGGTT TAGAAGTTCT GGAGGCTCTA GCTGAAAAA CAGGTTTGA	3000
CTATGAGATT GACAGACGAC CGTTCGGAGG TGCAGATATT GATGCAGCAT GACCTCCCTT	3060
ACCTGATGAA ACCCTTAAGG CAACTAGGGA AGCAGATGCT ATCCTACTAG TAGCTATCGG	3120
TAGTCTCAG TATGATGGAG CAGTGGTTCG CCCTGAACAA GGCCTGATGG CTCTCCGTAA	3180
GGAACTCAAT CTTTACGCTA ATATTCGTCC TGAAAAATC TTTGACAGTC TCAAGCATT	3240
GTCACCACTC AAATGGAAC GAATTGCTGG TGTAGACTTT GTCGTGGTGC GTGAATTGAC	3300
AGGCGGGATT TACTTTGGAT ATCATATTCT TGAAGAGCGC AATGCGCGTG ATATCAACGA	3360
CTATAGCTAT GAGGAAGTGG AGCGGATTAT TCGCAAAGCC TTTGAAATTG CAAGAAATCG	3420
CAGAAAAATC GTTACTAGTA TCGATAAGCA AAATGTTCTA GCGACCTCAA AACTCTGGCG	3480
GAAAGTAGCT GAGGAAGTCG CACAGGATTT CCCAGATGTA ACCTTGGAAC ATCAGCTGGT	3540
AGACTCAGCT GCTATGCTTA TGATTACCAA TCCTGCTAAG TTTGATGTTA TTGTAACGGA	3600
GAATCTTTTT GGAGATATTT TATCTGATGA ATCAAGCGTC TTATCTGGTA CACTTGGGGT	3660
TATGCCATCA GCCAGTCATT CTGAAAATGG ACCAAGCTCT TATGAACCTA TTCACGGTTC	3720
AGCACCTGAT ATTGCAGGTC AAGGAATTGC CAATCCTATT TCCATGATTT TATCAGTTTC	3780
CATGATGTTG AGAGATAGTT TCGGACGTTA TGAGGATGCA GAGCGTATCA AACGTGCTGT	3840
TGAGACAAGT CTGGCGGCAG GAATTTTAAC GAGAGATATA GGAGGTCAGG CTTCAACAAA	3900
GGAAATGACG GAAGCTATTA TTGCAAGGTT ATGAAGTTAG ACGAAAAAT TACTCTAGTC	3960
CTTTTGATTT GGAATGTCAT CATTTTCTTG ATTTATGGTA TTGACAAATC TAAGGCAAGG	4020
AGAAGAGTTT GGCGCATCCC TGAGAAAATC TTACTTATTT TAGCCTTTAC TTTTGGTGGT	4080
TTTGGTGCCT GGCTAGCAGG AATCATCTTT CACCACAAGA CTCGAAAATG GTACTTTAAA	4140
ATAGTTTGGT TTCTTGGGAT GGTGACCACA CTAGTAGCCT TATATTTTAT TTGGAGGTAA	4200
TGGATGGCAG GGTCTTCGAG GGAATACGCT GCTTGGGCTC TAGCGGACTA TGGTTTAAAG	4260
GTCGTGATG CAGGATCTTT CGGTGACATT CATTACAATA ATGAACTCAA TAATGGCATG	4320

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TTGCCAATCG	TTCAGCCTAG	AGAGGTTAGA	GAGAACTAG	CCCAGCTAAA	ACCAACCGAC	4380
CAGGTAAC TG	TGGACTTGGA	ACAACAAAA	ATCATCTCAC	CAGTTGAAGA	ATTACACCTTC	4440
GAGATAGATA	GCGAGTGGA	ACATAAACTC	CTAAATAGTT	TGGATGATAT	CGGTATTACC	4500
TTGCAGTATG	AAGAGTTGAT	TGCTGCTTAT	GAAAAACAAC	GACCAGCCTA	CTGGCAGGAT	4560
TAGAAAAAT	AGAAAAGGAG	ATATAGTAAA	CTGAAATAAG	ATGTAAACAA	ATGAATTGGA	4620
GCTTAACATC	CATTTCACGC	AATTTTTTAG	AACTACAGT	GGACTATTCT	GGATTCAACA	4680
CATTATAAAA	TTATGACAAA	ACACATTCAC	AAGAAGGCTA	CGACATTTTA	AAAGGTGAGG	4740
GCGGATGTAT	CGTTTGCCCT	ACTAAAGTTG	GTTACATTAT	CATGACCAGT	GACAAGGCAG	4800
GACTTGAGCG	TAAGTTCGCA	GCCAAAGAAC	GTAAGCGTAA	CAAACCAGGT	GTTGTTCTCT	4860
GCGGTAGCAT	GGATGAAC TT	TGCGCTTTAG	CGCAACTCAA	CCCAGAAATT	GAAGCATTCT	4920
ACTAAAAACA	TTGGGATGAA	GATATTCTTC	TTGGTTGTAT	CCTTCCTTGG	AAACCAGAAG	4980
CCTTTGAAAA	ACTCAAAGCA	TACGGGGATG	GCCGTGAAGA	ACTTATTACT	GATGTACGTG	5040
GTACTAGCTG	TTTTGTTATC	AAGTTTGGA	AAGCAGGTGA	ACAATTGGCT	GCCAAGCTTT	5100
GGGAAGAAGG	TAAATGGTC	TACGCCCTCAT	CTGCTTCAAT	GACAAAACGA	TTGAAACTCG	5160
CTATGAGCAA	GGTGAATGG	TGTCTATGGT	CGATAAGGAC	GGCAAACTCA	TCCCAGAACA	5220
AGGAGGAGCA	CGTTCAACTT	CACCAGCTCC	AGTTGTGATC	CGTAAAGGGC	TTGACATTGA	5280
TAAATCATG	ATGCACCTGT	CAGATACTTT	TAATCATGG	GACTACCGTC	AGGTTGAGTA	5340
TTATTAGGAT	AGAGAAGAAG	TCTAGTGTTA	TGAGATATTA	AAGCTCCTAA	CACTGGGCTT	5400
TTGTTTAGAA	TTTCTTTTCT	TTTTCTATAG	GATATGGTAT	TCTATGTAGA	AAATATATGT	5460
TAATAAGTAA	TGCCAATATT	TAAACATCAT	TAGTAAAAGG	AGTTAGATTG	ATGAATAAAA	5520
GAAAAGTTAG	TTTAGAAGAT	TTTATAAAT	GGTATAGTCT	AAATAAAGAA	GAGTTATTAA	5580
ATAAGGCAAC	TGTTGGTGAA	AAGTTTAATG	ATAAATTAAA	AGAAGAGTTT	CTCCAGGAAT	5640
GGCCTTTGGA	TAGGATTTTA	ACAATGTCAA	TCGATGAATA	TGTAATAGGA	AAGGGACAGC	5700
AAAATAAGTC	TTTATGCTAC	GCTCTTGAGA	AGGGAAAATA	CAAAAATCTA	TTTCTTGGA	5760
TTTCTGGTGG	CTCAGCTTCA	AAATTTGGTA	TTTATTGGAA	TAAAAAACA	AACAAATATA	5820
AAGATCAAGC	TAATAATGAG	ATTTACAGAT	TGGATCAGCG	ATTTTCAAAA	TTAAATCAG	5880
ATTTGTATGA	AATTATCAAA	GAAGGTATTC	GTTTTAACTT	TGAAAATCCT	ATTTTGTATA	5940
TGAAAAGATC	AACAAATGAA	TTTATTGGTC	GTTCTGCTAT	GGTGACAAAA	TTACTTTGTA	6000
TCTATACTGA	GGGAGATCCT	TTCTTTGGTG	TAAATATTAA	TAGTCAGAAA	GAATTTTGGA	6060

1114

ACCACTTTGT TTCTCAGACA AATCAAGGTG GACCTTATCT GCAAAATCAT AAAATAATTG	6120
AACTGGTGTC CAAAACCTTAT CCTGAGTTGG AGCCATCGAA ATTAGGAACT ATGCTTTTGT	6180
AGTATTCTAA GCTTTTTATG GAAAATAAGG AAGACAATAG TACAATGGAT TCATCAAACA	6240
ATTTTCGTCA TCAATTAACT CAATCTCTAT TAAAGTCTCC AAACCTCATC CTCCGCGGTG	6300
CTCCTGGCAC GGGAAAACT TATCTTGCTA AAGAAATGTC TAAAGAATTA ACGGATGGCA	6360
ACGAAGATCA AATCGGATTT GTACAATTTC ACCCATCATA TGATTATACG GATTTTGTAG	6420
AAGGTTTAAG ACCAGTATCA AATGGGGATG GAGCTATGTA GTTTAGGCTA CAGGACGGTA	6480
TTTTTAAAGA TTTTGTGTCAG AAAGCAAAAG AAACCCAATT GATTGGAGGA CAAGATAATT	6540
TTGATGAGGC TTGGGATCTT TACTTAGAAT ATATAAATGT TGCTGAAGAA AAAGAATATA	6600
TAACAAAAC ATCTTACTTA TCTGTTAATA GTAGACAAA TTTGTCAGTA AATTATGATA	6660
GTGGTGTTCC AGGATGGTCA CTACCTAGCA AATATGTTTA CGAGTTGTAT AAAGATAAAA	6720
ATTATAATAA GCAAGAATAC TACAAAAGTG GTGGA AAAAC TGTCTAGAA ACATTGAGAA	6780
AGAGATTTGG TTTGAAAGAC TATGTTTCCC CAACAGAAAT TGATACTGAT AAGAATTTTG	6840
TCTTCATCAT CGATGAGATC AATCGTGGGG AGATTTCTAA GATTTTGGGC GAACTCTTTT	6900
TCTCTATCGA CCCCGGCTAT CGTGGTGAAA AAGGAAGTGT TTCTACCCAA TATGCAAATC	6960
TACACGAAC TGATGAAAAG TTCTATATCC CCGAAAATGT TTACATCATC GGAACATGA	7020
ATGATATTGA TCGTTCAGTG GATACCTTTG ATTTTGCTAT GCGTCGTCGT TTTCGTTTGT	7080
TTGAAGTTAC TGTCGAGGGT CAAGCTGGCA TGTTGGATAA AGAGTTGAAT ATCCATGCAG	7140
AAGAAGCAAA AATTCGTCTA AGAAACTTGA ACGCTGCTAT CGAAAATATT CAGGAATTAA	7200
ACAGTCATTA TCATATTGGA CCAAGTTATT TTCTTAACTT GAAGGATGTA GATTTTGAAT	7260
ATGAATTACT CTGGTCTGAT TATATTAAAG CTCTCCTAGA AGACTACTTG CGAGGTCTCT	7320
ATGATGAGGT TGAAACTTTG GAAACTTTGA AAAAAGCATT TGATCTGACA AATAATGAGC	7380
AAAAAGATCA GGCAGTAGCT GATGACAATG AAGGCGATGA AAACGATGAT GCGGATTAAT	7440
GATAATCAAC ACAAGATTAT TAAAGAAAAA TTTGTTGAAG AATATCCTAA ACTAAGCAAT	7500
CCTCTTTTAG ACAGAACCTT GGAAAGTCTA TCCCAAGATG AACGTATTTT CATTTTCCA	7560
AATGATTWGA CTCATACTCC TGATTTGGAT AAGGACCAAA AGATTTTGA AACAGTCAAT	7620
CAGAAAATCA AGACAGGGAA CGTGATTGGT TTTCTTGGAT ATGGTCAGGA AAGATTAACG	7680
ATTTCTCAC GATTTTCTGA TGAGAGTAAT GACCACTTTT TGCATTATCT CTTAAACAAG	7740
GTCTTCATA TCAATCTCAC TAGTTTAGAT GTTGCTTTGT CTCGTGAAGA GAGGCTTTAT	7800
CAACTTTTGG TGTATCTCTT TCCCAAGTAT CTACAAGCTG CTATTCGAAA AGGTCTTTAT	7860

1115

AAGGAATATC ATCGATTTTC TCATAACGAC AGTCATGTTA AGGGAGTGAT TGATGTAAGA	7920
AACCATCTCA AGAAAAATCT TCCTTTCACG GGAATATTG CCTACGCAAC GAGAGAGTTC	7980
ACCTATGATA ATCCCCTCAT GCAGTTGGTC CGTCACACTA TTGAATACAT TAAGAATCAG	8040
AAAAGCATTG GTCAAGGGGT ACTAGATAAT CTCTCAACTA GTCGTGAAAA CGTATCTGAA	8100
ATCGTGCGTG TAACGCCCTC TTATAAACTA GCTGATCGTG CTAAGATTAT TCGGGGAAAT	8160
CAATCTAAAC CTATACGTCA TGCATACTTT CACGAGTACA GAACTTACA AGAACTTTGT	8220
CTGATGATCC TAAACCAAGA AAAGCACGGT TTAGGTATC AAGATCAAAA AATCTATGGT	8280
ATTCTCTTTG ATGTTGCCTG GCTTTGGGAA GAGTATGTTT ACACCTTGTG GCCAAAAGGT	8340
TTTGTACATC CCAGAAATAA GGATAAGACG GATGGAATTT CAGTATTTTC TGTGGGAAA	8400
CGAAAAGTAT ATCCAGATTT TTATGACAGA GAACGAAAGA TTGTTCTAGA TGCAAAATAT	8460
AAAAAACTGG AATTGACTGA AAAAGGAATC AACCGTGAGG ACTTATTCCA GCTGATTTC	8520
TATTCTTATA TTTTAAAGC TGAGAAGGCT GGACTGATTT TTCCTAGTAT GGAGCAGTCA	8580
GTAAATAGTG AAATAGGAAA AGTAGCTGGC TATGGAGCTC AATTGAAGAA GTGGTCTATT	8640
CGAATCCCTC AGAATGCCTC ATTCTATAGT ACATTTTGTA AAATGATGGA AAATTCAGAA	8700
GAG	8703

(2) INFORMATION FOR SEQ ID NO: 178:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4854 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 178:

CATCACCAGT TTTAGATGGC TTTAACAGTG AAATTATTGC TTTAATCTT TCTGTTCGC	60
CTAATTTAGA ACAAGTACAA ACAATGTTGG AACAGGCATT CAAAGAGAAG CACTACGAGA	120
ATACGATTCT CCATAGTGAC CAAGGCTGGC AATATCAACA CGATTCTTAT CATCGGTTCC	180
TAGAGAGTAA GGAATTCAA GCATCCATGT CACGTAAGGG CAACAGCCAA GACAACGGTA	240
GGATGGAATC TTTCTTTGGC ATTTTAAAT CCGAAATGTT TTATGGCTAT GAGAAAACAT	300
TTAAATCACT TAACCAATTG GAACAAGCCA TTATAGACTA TATTGATTAT TACAACAATA	360
AGAAAATTAA GATAAACTA AAAGGACTTA GTCCTGTGCA GTACAGAACT AAATCCTTTG	420
GATAAATTAT TTGTCTAACT GTTTGGGGGC AGTACACAAG AAAGCGCTTT AAAACCAGTA	480

1116

GACCTTTTCA TAAGGTTTCG TTGATGTACC AAGATGAGGC TGGTTTCGGT AGAATCAGTA	540
AACTGGGATC TTGTTGGTCT CCAATAGGAG TAGGTCCACA TGTCCATAGT CACTATATAC	600
GAGAATTTTCG CTATTGTTAT GGAGCTGTTG ATGCCCATAC AGGCGAATCA TTTTCTTAA	660
TAGCTGGTGG ATGTAATACT GAGTGGATGA ACGCCTTTTT AGAAGAGCTT TCACAAGCTT	720
ATCCAGATGA TTATCTTTTA CTCGTTATGG ACAATGCTAT ATGGCATAAA TCAAGTACCT	780
TAAAGATTCC GACTAATATT GGTTTTACCT TTATTCCTCC ATACACACCA GAGATGAACC	840
CATTGAACAA GTGTGGAAAG AGATTCGTAA ACGTGGATTT AAGAATAAAG CCTTTCGAAC	900
TTTGGAAGAT GTCATGAATC AACTCCAAGA TGTCATACAA GGATTGGAGA AGGAGGTGAT	960
AAAGTCCATC GTTAATCGGA GATGGACTAG AATGCTTTTT GAAAACAGAT GAGTATAAAA	1020
TTGAATTGCT TATAAAAAAG CTCCATACAC TGGATGTGTA TAGAGCAATG GGGCTTTATT	1080
TGATATAGAG TTCTTGGTTT TTTAGGACAA TTTCTCGGAT ACTTGCAAAC TTTTAAAGTT	1140
TTTTGATTTT TTCTGGATGA GTGACGAGAG TGATAACATA ACCTTCCTTG CCCATACGAC	1200
CAGTACGGCC AGCACGGTGT GTGTAGGTTT CGCTATCTCT AGGAATATCA AAGTTTACGA	1260
CACATTCTAG GCTATCGATA TCAATTCCAC GAGCCAAAAG GTCAGTTGCA AGAAGCAGGG	1320
TTAGTTGGTT ATCTTTAAAC TTTTCTAAGA TGATTTTCTT AAATTTAACA TTAACATCAC	1380
TAGCGAGGGA AACAGCCAAT ATATCAGGAT ACTGTAGTTT TTCCTCGGCA TTCCCAAGGT	1440
CTGACAGGCT ATTGAAGAAG ACTAGACCAC GGAAATCCTC TACATGAGCC AGTTTTCGTA	1500
GCATATCCAC TCGATGACGT TGGTCTACCT GCATGTAGAA ATGCTGGATA TTGTCCAATT	1560
TTTGATCAGA GAGATCAATA GTGCGTGTAT TCGGCACAAT CTTTCTTTGG TCAAACTTGG	1620
TCGTGGCACT CATGTAGACC AGTTGGTGGT CACGAGGTGC GTAGTGAGTG ATTTTTTCTA	1680
CAAAGTGAAT CTGAGAATCA TCTAGTAATT GGTCAAATTC ATCCAGGATG ATGGTTTCCA	1740
CATTTCATCAT CTTGATTTTT TTAAGTTTAA TGAGTTCAAA GATACGGCCA GGAGTTCCAA	1800
TCAGAAATTTC TGGCCCCCTT TTAAGACGTT CAATTTGTCTG TTTCTGACTT GAACCTGAAA	1860
GGAAGAGTTG AGCAGTCAAT CCGATAGCTT CTGCCCCAGT TTTACATACA TCAAAAATCT	1920
GTCCAGCAAG TTCCGTATTT GGTGCTAGAA TCAAGAGTTG TTGGGCTTTT TTCTTTTGTA	1980
GTCTGAGAAG ACTTGGTAGG AGATACGCTA GGGTCTTACC AGTTCGGTT TGGCTCACTC	2040
CTAGGAGGTT TTCTCCAGCA AGAAGGGGCT CAAATAGTTG AGTTTGAATG GGGGTGAATT	2100
CTTGGAACC GAGTTGGTCA CTCAGTTCTT GCCATTCACT CGGTAGTTTG GTTTTCATTT	2160
TTCTGCCTCA AATCTAATGC CAGCAGTCTG GCGCATGGTA TATAGTAGCT CATGAACAGA	2220
GCCTGCATCA TACAGCCAAG TTTGGTAGAG ATTCAGATCT GGTGCTGGA TCATGTGTGC	2280

1117

AAATGCAGCG ACTTCCTCAG TCATCGTATG AGGAGCCTGT TGGATAGGAA GCTGGACTTG	2340
ATTTCCCTTGG TGGTCGGTAA AAATAGCTGA GCGAATATGC TCAATCGTGT TGAGAGTCAA	2400
GGTTCCATCT GTTGATATAA TCTCGCAAGG AAGATTGGAA GTGATGTTTT TTCCAGCCTT	2460
GATGTGAAC TATAGTCTG GGTAGAAGAG GATACCATCT CCATTAGGT CAATGCTATT	2520
GTCAAGCTGT TGAGCATGGT AAGTCGCGTC ATTGGCTTTT CCAAAAAGAC GAACAGCAGC	2580
ATAGAGGGGA TAAATCCCA AATCCATGAG GGCTCCACCA GCAAAACGGT CTGAAAAGAC	2640
ATTTGGTGTT TGTCCAGCCA ACAAGTCAGG CATCTTGGAA GAGTATTTGG CATAGTTGAA	2700
ATCTGCTCCT AACACTTGCT TATCTGCTAA AAAGTTTTTG ATAGTAGTAA AGGCTTTCTC	2760
GTGGTAATTA CGAGCTGCTT CAAAGATAA ACAGTTATTT TTTTCAGCTG TTTGAATCAA	2820
ATCAAACCAT TCTTGTTGGT GAGAGACAGC TGGCTTTTCG AGAATAACAT GTTTACCAGC	2880
AGACAAGGCA GCTTTTGCCT GAGCAAAATG TAAGGAGTTT GGAATGGCGA TATAGACTAA	2940
ATCAAAGAA GATTTGAAGA AGACTTCTAA TTGATCGAAT AGTTGGATAT TCTGATAGCG	3000
AGAAGCAAAG GTTGCTGCAG TTTCTAGTTT TCTAGAATAG ATTGCGACCA GTTGGTATTC	3060
TCCACTGGTA TGGGCTGCTT CTATGAAATG ATGGCTGATA GCGCCAGTTC CGATGACACC	3120
TAATTTTAGC ATAAATACTC CTTTCCGAT TTAAATCCT TCTTTCATTA TAACATAGAT	3180
AGACGGGACT ATCCAACAGA GAGGAGAAAA TTTCAAATAA GCTATTAGCT TTCTTTCCG	3240
AATAATAGA TAGAAGCATA GAATCTAGCA AACCTAGATT TAAAAATGTG CTATAATAGA	3300
AGGAGGAAAA GGAGGATTCT CAGACATCTA GGTATCAGCC CAACTAATGA TTTGTCAATT	3360
TATCCGCGAT ATGCTGGACT TGCCAGCAAA AAATGTGACG ATTTTGGAGG GAAGTAACAT	3420
TCACGTCTTG CCTTCCATGC CCTACTCAGC GTAAGATTTC TATACTAGTA TAGACGTCTT	3480
GGCGGAGTTA GATAATGGAA TCCAAGTTAT CATCGAAAT CAGGTTTCATC ATCAGAATTT	3540
TTTCATCAAT CGCCTATGGC CTTATCTGTG CAGTCAGGTT AATCAAAACC TAGAAAAAAT	3600
TCGCCAACGT GAAGGTGATA CCCACCAGAG CTACAAACAA ATCGCACTAG TATACGCTAT	3660
CGCAATTGTC GATAGTAATT ACTTCTCAGA TGACCTAGCT TTTCATAGTT TTATAGTAAA	3720
ATGAAATGAG AACAGGACAA ATCGATCAGG ACAGTCAAAT CGATTCTAA CAATGTTTTA	3780
GAAGTATAGG TCTACTATTC TAGCTTCAAT CTACTAGAAA TTCCATAGAT AGAAAACTAC	3840
ATAATCTCTA CAGATACGGA TGTTGGAGTT GATGTAAGAT GCTTTGGCTT GCTAGAGGAA	3900
TTGTGGATTG CCAAATTGTA TCATTGAAAT TATTGCTCAA ATTTGTTATG ATATAAATAT	3960
GAATAAAAGT AGACTAGGAC GTGGCAGACA CGGAAAACG AGACATGTAT TATTGGCTTT	4020

1118

GATTGGTATT TTAGCAATTT CTATTTGCCT ATTAGGCGGA TTTATTGCTT TTAAGATCTA	4080
CCAGCAAAAA AGTTTGTAGC AAAAGATTGA ATCGCTCAAA AAAGAGAAAG ATGATCAATT	4140
GAGTGAGGGA AATCAGAAGG AGCATTTCG TCAGGGGCAA GCCGAAGTGA TTGCCTATTA	4200
TCCTCTCCAA GGGGAGAAAG TGATTTCTC TGTTAGGGAG CTGATAAATC AAGATGTTAA	4260
GGACAAGCTA GAAAGTAAGG ACAATCTTGT TTTCTACTAT ACAGAGCAAG AAGAGTCAGG	4320
TTTAAAGGGA GTCGTTAATC GTAATGTGAC CAAACAAATC TATGATTTAG TTGCTTTTAA	4380
GATTGAAGAG ACTGAAAAGA CCAGTCTAGG AAAGGTTTAC TTAACAGAAG ATGGGCAACC	4440
TTTACACTT GACCAACTGT TTTCAGATGC TAGTAAGGCT AAGGAACAGC TGATAAAAGA	4500
GTTGACCTCC TTCATAGAGG ATAAAAAAT AGAGCAAGAC CAGAGTGAGC AGATTGTAAA	4560
AAACTTCTCT GACCAAGACT TGTCTGCATG GAATTTTGAT TACAAGGATA GTCAGATTAT	4620
CCTTTATCCA AGTCCTGTGG TTGAAAATTT AGAAGAGATA GCCTTGCCAG TATCTGCTTT	4680
CTTTGATGTT ATCCAATCTT CGTACTTACT CGAAAAAGAT GCGGCCTTGT ACCAATCTTA	4740
CTTTGATAAG AAACATCAAA AAGTTGTCGC TCTAACCTTT GATGATGGTC CAAATCCAGC	4800
AACGACCCCG CAGGTATTAG AGACCCTAGC TAAATATGAT ATTACAAGCG GGGT	4854

(2) INFORMATION FOR SEQ ID NO: 179:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 179:

TAAACAGGTG TTAGGTGCTC TAAACTATTA AAATCTAAG GAAATAAGGC TACTTTTCT	60
GGGTCTTGTT CATAGTAGGT GTGGTTCCTT TTTTCGAGTG TAGCCCATAG CTTTGAGCGC	120
ATAGTGGATG GTAGTTGGAT GACAGCCAAA TTCAGAAGCT ATTTCACTCA AATAAGCATC	180
TGGATTGTCA GTAAGATAGT TTTTAAGTCT ATCTCTATCA ACTTTTCTTG GTTTTGTCC	240
TTTACTTGG TGGTTAGCT CTCCTGTTTT CTCTTTTAGC TTTAACCAGC CATAAATGGT	300
ATTACGTGAG ATTTGGAAAA CGTGTGATGC TTCTGTTATA CTACCTGTTC GCTCACAATA	360
AGAGAGAACT TTTTACGAA AATCTATTGA ATATGCCATA AGAAGATTAT ACCACATTGT	420
GTACTATTTT TGGTTCAATT TACTATATTT CTAACACTT AGAAATAATA AAACAAATTA	480
AATATTATTT CTAATATTT GAAATAACA TCTATTTGTA TTATACTATC TTTGAGGTAA	540
CTATTATGAA CTATATCAAA AGACCACATT ATTTAGATTT TTTAAGAAAA CATCGTGACC	600

1119

GACCAATCAT CAAAGTTGTG AGTGGAGTTA GACGAGCTGG TAAATCTGTG CTTTTTCAAC	660
TCTATAAAGA GGAGTTACTA GCAACTGGGG TAGACGAGGA TCAGATTATA TTCATCAATT	720
TCGAAGATTT GAGTTACTAT GATCTGCGAC ATTTTCAAAC ATTATTCGCT TATATAAAG	780
ATCAATTAGT TAGCAAGAAA ACATACTATA TCTTTTLAGA TGAAATTCAA TATGTTGAAA	840
AATTTGAACT GGTAGCAGAT AGTCTATTCA TCTTAGCAAA TGTAGACCTC TATTGACTG	900
GATCTAACGC CTACTTTATG AGTAGCCAAT TAGCAACAAA CTTGACTGGT CGGTATGTTG	960
AGATAGAGGT TCTTCCTTTG TCATTTGAAG AATATCTATC AGGTCAATCT CTCACAGAGA	1020
ATCTGAATAC AACAGAAATT TTTAACAATT ATCTCTTAG TGCTTTCCCT TACTTATTGC	1080
AAACATCATC TTACGATGAA AAAATTGACT ATCTCAGAGG AATATATAAC TCCATACTGT	1140
TAAATGATAT TGTCACTAGA TTGGGAAAAC CAAATCCTAC TATTATTGAG CGCATGTGCC	1200
GAACCCTTCT CAGTAGTACA GGTAGCTTAA TATCAACAAA TAAGATTGCG AATACCCTAG	1260
TCAGCCAAAA TGTTTCAATA TCCCATAATA CTTTGGAAAA TTATTGACA ACTTTGACAG	1320
ATAGTTTACT TTTTATTCC GTTCCACGTT TTGATGTAAA AGGTAGAGCA TTATTGCAAC	1380
GTTTAGAAAA ATATTATCCC GTTGATTTAG GTTTACGACA TCTCTTATTA CCAGACCAGA	1440
AAGAAGACAT TAGGCATATC TTGGAAAATA TGGTATATTT GGAATTGAGA CGTAGATATT	1500
CACAAGTATA TGTTGGTAAT TTAGATAAGT ATGAGGTTGA TTTTGTGTT GTAAGTATC	1560
TTGGCCACTA CGCTTATTAT CAGGTCAGTG AAACAACACT TGCTCCAGAA AACTAGAAA	1620
GAGAACTTAG ACCACTAGAA GCCATTAAAG ATCAATTCCC TAAATATCTA TTAACAATGG	1680
ATACGATTCA GCCAACAGCC AATTACAATG GAATCGAGAA GAAAAGCATT ATAGATTGGT	1740
TACTAGAAAA ATAGATAAAT ATAAATCATA CAGCTAATTA GATTTGCAAC AGTCTGTTAT	1800
CAATGATTCT ACCCAAATCC TAACAAGATA TAGTGAATTT CGAATACGCT ATATAATACG	1860
GACACTTGAA AATAGAAATT GGGGATGAAA GGGGATCTAT AATTTCTGGA AGTACTATCA	1920
AAAATTAATA TCATAGTCTT ATTAGAGAAT AGCATCACCC ACTTTCTCAA ATAAGATTAA	1980
ATTGTAAGTG AATTATAATG AAAAAGAGAC TGAGCAATCA GTCTTTAAAA TCAGAAAAGC	2040
GCATAGTATC AGGTATTGAA CAACCTTGAT AATATGCGTT TTATTATGGA AATATTTGCT	2100
TCATTTTCTC CTGAAATAGA GCTTTTGCTA TCCTATTTTT CTCTATTCTT AATGATTTAC	2160
TTCAACTTCT TACCTCTTGG GAAAAA	2186

(2) INFORMATION FOR SEQ ID NO: 180:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3236 base pairs

1120

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 180:

GTCACACGTT TGACTTCACG TATTTTCATAA GTATAAACTT TATTTTTATC GGTTAGATAA	60
ATCTTCATGC CATTTTTAGC ATTATCTAAA GGAGAAAATA ACATTTTATT AGCATTATCA	120
ACACCAAGA TATGGTGACT AGCTAGACTA TAATTTCTCT CTCCCATAC TTGCTCGCGT	180
TTCATTGTAC CAGCTCCGTA GAAGAGATTA ACATTATCAA GTCCTTTAAA AATCGGCAAA	240
TTCATTTCCA ATTCAAGAAAT TGCAATTCCT CCAATAACTG GTAATTTTGG AGCATCCCAT	300
TGAGAAGTTA GAACAGCTTC CGAAGAGATA GCTTTGACAG AATCAAAGTC AAAATTGCCT	360
TCTGTATCCT GATTTTCTTC TAATTTTCTT TTTGATACCT GGCTAACTTG ATACTTATTG	420
GTATTCCAGA CTATGAAAT ATTTGCAATT TGAGTATTAA AAATCAAAGC CAGTGACAGT	480
AATATCAGAA ATCTGTAGT GATATTTGTC AGCAGATTTT TTCGCTTGT TTTCTTTTAA	540
TTATTTTTTT GAGACATTAT GCTTCACCTT CTGTTTCGTT TTCTGTCCCA ACTTCTTCTT	600
TTTCTGCCAC CGCAACCGTT GTGAAAGTCA CTATCTGAGC ATCTTGATCC AGGCGCATT	660
CTTTAACTCC CATAGTTGCA CGTCTGTTT GTGAAATATT GGCAAGATTG GTTCGAATCA	720
TGACACCTGT ATCAGTGATA ATCATCAAAT CCTCATCCCC TTGAACAGTC ATAAGACCGG	780
CCAGCAAGCC ATTTTTTTCG GTAATTTTAG CTGTCTGCAT TCCCTTACCA CCACGACCTT	840
TTGTTGGGTA TTCAGTAGCG ACTGTACGCT TACCATATCC TTTTCTGTG ATAATAAGAA	900
CCTCATCTTG ATCAGTAATC AAGCTGGCAC CAACAACGTG GTCTCTTCA CGAAGGTTAA	960
CACCTTTTAC ACCAGTGGCG ATACGGCTCA TACCACGAAC GGCTGATTGA TTAAAGCGAA	1020
CTGCATAACC AAACTTGGTA CCAATGATAA TATCCATATC TCCTTCTGCC AACAAGACAT	1080
TGATTAATCT ATCTTCATCC TTTAAATTCA GCGCTTTGAG ACCATTTTGA CGAATATTGG	1140
CAAACCTCCT AACACTGGTT CTCTTCACAA TACCGTGACG GGTGTAAAG AAGAGATAAG	1200
CATCATCACT GCGATCAGAC TCAACATTGA TAACCGTCTG AATACTTTCG TCTTCATCCA	1260
ATTTCAAGAG ATTGACTACT GTAGCCCTT TGGCAGTCCG ACCATACTCA GGAATTTTAT	1320
AACCTTTAAG ACGATAGACA CGTCCCTTGT TTGTGAAGAA GAGCAGATGA TCATGGGTGC	1380
TAGTTGACAC TAACTCACGA ACAAAGTCAT CATCTTTCAC TCCCGTTCCT TGGACACCAC	1440
GACCCCCACG TTTTGTAGCA GTGAACTCGT CCTGATCCAA ACGCTTAATG TAGCCTCTGT	1500
TAGAAAGGGT AATCAAGACA TCCGATTCTT CAATCAAGTC CTCATCCTCG AGACTCAAGA	1560

1121

CCTGTCCAAT CATCAACTCT GTACGGCGCT TATCAGAAAA TTTACGTTTA ACTTCATCCA	1620
ATTCGTCTTT GATAATTGGA GAAACACGTT CAGGCTTAGC AAGAATATCT GCTAAATCCG	1680
CAATCAGAGC CAAGAGGTCA TCATACTCAG ATTGAATCTT ATCGCGTTCC AACCTGTCA	1740
AACGACGAAG ACGCATATCA AGGATAGCTT GACTTTGACG TTCAGAAAGC TTAAACTTGC	1800
TCATCAACTC AGCTTGAGCT TCCGCATCGG TTCACTAGC ACGGATGATA CGAATCAATC	1860
GTGATATGG TCTAGCGCAA TCAAGAGACC TTCTAAGATA TGAGCGCGCG CTTCGCTTT	1920
TTCTTATCA AAACGTGTAC GACGAACAAC CACTTCTTTT TGGTGCTCGA TATAAGCATC	1980
CAAAATCTGA CGAAGAGACA AAATTTTCGG TATACCATT TGGATAGCGA GCATATGAA	2040
ACCAAAATTG GTTGCATTT GGGTCATTTT GAAGAGGTTA TTGAGAATAA CATTTGGCTGA	2100
GGCGTCGCGC TTGACTTCAA TAACAAATCG AACACCTTCA CGTTTGGACT CATCACGTAC	2160
TGCTGTGATA CCCTCAATGC GTTTTTCCTG AACCAAGCGA ACAATATGCT CATGCACCTT	2220
GGTTTATTG ACCATGTAAG GAAATCTGT TACAACGATA CGCTCACGAC CAGTCTTAGT	2280
CGTTTCAATC TCTGTACGAG AACGTAGGAC AATCGAACCT TTACCTGTTT CATAAGCCTT	2340
ATGGATACCT GATTTCCCCA TGACAAGAGC ACCAGTTGGA AAATCTGGTC CAGGCAAGAC	2400
TTCCATCAAG TCCTTGGTAG TCACTTCAGG ATTATCCATG ACCAACTTCA CTGCATCAAT	2460
GGTTTACCC AGATTATGAG GTGGAATATT GGTGGCCATC CCAACCGCGA TACCAGTTGC	2520
TCCATTAAAC AAAAGGTTTG GAAAACGCGC TGGCAAGACC AAGGGTTCCC GTTCATTGGC	2580
ATCATAGTTA TCAACGAAAT CAACTGTATT TTTGTTGATA TCACGAAGCA TTTCCAGAGC	2640
AATCTTGCTC ATACGTGCCT CGGTATAACG TTGAGCGGCA GCACTATCTC CATCCATGGA	2700
ACCAAAATTC CCATGACCAT CTACAAGCAT GTAACGGTAG CTCCACCATT GAGCCATACG	2760
GACCATGGCT TCATAAATAG AGGAATCCCC GTGTGGGTGA TATTTACCCA TGACATCCCC	2820
TGTAATACGA GCAGATTTT TATGGGGTTT GTCTGGGGTC ACACCCAATT CATTCATTCC	2880
GTAGAGAATG CGACGGTGAA CAGGTTTAA GCCATCTCGA ACATCAGGAA GAGCTCGCGC	2940
TACGATAACA CTCATGGCGT AGTCGATAAA ACTTGCCTTC ATCTCCTTTG TCAGATTGAC	3000
ATTCACTAAA TTTTATCCT GCATTAATAA ATGCCTCATT TCACAATTAG TAAGTAACAA	3060
CATTATACCA TAAATCCCA TCTATTTAG CCTCTAAACC ACTAAAACGT TTACATCGAG	3120
AACTATAAGG CATATTCGTG ACAAAGTTT TTAAGTGA TAGAATGAAG TTGTCTAGGG	3180
AAAACCCCTA ATAGAATAAG GAGATGGTTA TACAATGACT CTGACTAACA CACAAA	3236

(2) INFORMATION FOR SEQ ID NO: 181:

1122

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8651 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 181:

AGGTCCTGAA GTATTGGAAC AGGAAGGTCA AGAGTTTTTG GAACATTTC AAAAACTCTT	60
GGAGTCAGTT GAAGTAGTAG CCATCTCAGG TAGTCTGCCA GCTGGCCTTC CAGTTGATTA	120
CTATGCGAGC TTGGTAGAAC TTGCTAATCA AGCTGGCAAG CATGTAGTCT TGGACTGCTC	180
AGGTGCAGCA CTTCAGGCTG TTCTTGAATC ACCCCATAAA CCAACAGTCA TCAAACCAA	240
TAATGAAGAA TTGTCTCAGC TTCTTGAAG AGAAGTTTCT GAGGATTGG ATGAATTAA	300
AGAAGTACTT CAAGAACCTT TGTTTGCAAG GATTGAATGG ATTATCGTTT CACTTGGTGC	360
CAACGGTACT TTTGCCAAAC ATGGTGACAC TTTCTACAAG GTAGATATTC CTAGAATTCA	420
GGTGGTAAAT CCTGTTGGAT CTGGAGACTC TACTGTGGCA GGAATTCTT CAGGACTTCT	480
TCACAAAGAA TCGGATGCAG AATTACTCAT CAAGGCAAAT GTCCTGGTA TGCTCAATGC	540
TCAAGAAAA ATGACTGGTC ATGTCAACAT GGCCAACTAT CAAGCTCTAT ATGATCAATT	600
AATAGTAAAA GAGGTATAAA ATGGCTTTAA CAGAACAAA ACGGTGTACG TTAGAAAAAC	660
TTTCTGATGA AAATGGTATC ATCTCAGCTC TTGCATTGA CCAACGTGGT GCTTTGAAAC	720
GCCTCATGGT TAAACACCAA ACAGAAGAAC CAACTGTGGC CCAAATGGAA GAACTTAAAG	780
TCTTGGTAGC AGATGAATTG ACTAAATATG CTTCATCTAT GCTTCTTGAC CCTGAGTATG	840
GACTTCCAGC AACTAAAGCT CTTGATGAAA AAGCTGGTCT TCTCCTTGCT TATGAAAAAA	900
CAGGTTATGA CACAACAAGC AAAAAACGCT TGCCAGACTG CTTGGATGTT TGGTCTGCAA	960
AACGTATTAA AGAAGAAGGT GCAGATGCAG TTAAATTCTT GCTTTACTAT GATGTAGATA	1020
GCTCAGACGA ACTCAATCAA GAAAAACAAG CCTACATCGA ACGCATCGGT TCTGAGTG/G	1080
TGGCTGAAGA TATCCCATTC TTCCTTGAAA TCCTTGCTTA CGATGAAAAA ATTGCCGATG	1140
CAGGTTCTGT AGAATACGCT AAAGTAAAC CACACAAAGT TATCGGCGCT ATGAAAGTCT	1200
TTTCAGACCC ACGCTTTAAC ATTGATGTTT TGAAAGTTGA AGTTCCTGTT AACATTAAAT	1260
ATGTTGAAGc KTCGCTGAAG GTGAAGTAGT TTATACACGT GAAGAAGCAG CAGCCTTCTT	1320
CAAAGCGCAA GATGAAGCAA CGAACTTGCC ATACATCTAC TTGAGTGCTG GTGTATCAGC	1380
TAAACTCTTC CAAGATACTC TTGTATTTGC TCATGAATCA GGTGCGAACT TTAACGGAGT	1440
TCTTTGTGGC CGTGCTACAT GGGCAGGATC AGTTGAAGCT TACATCAAAG ATGGTGAAGC	1500

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AGCAGCTCGC GAATGGGCGC ACAACTGGAT TTGAAAACAT TGACGAACTC AACAAAGTTC	1560
TTCAAAGAAC AGCAACTTCA TGGAAAGAAC GCGTGTAAGA AAGTCCTCCT AGTTTAGGAA	1620
CATGAATCTA AAAAAATTA AAAAAAGTTG TATGTAAAGG CTTACAAAAT AACTTACTTG	1680
TGCTATACCT AAATCACAAG TTAATATGAA TTAGAAAGTA ACTATATGAA GTATAATAAA	1740
AATAGGATAT AGTTTATTTT ACGAGCTAGG AAGGAAAAAT ACGGAAACAA TATTGCCAGA	1800
ATAAATAATA TTTAGATGCA CATTTTATTC ATTGTTTAT AAAAGGAGAA GATAAACGGC	1860
TACTAAAAAG AGTTTAAAG CGTTAGTTGT AGGACTAGGT ATTGTTTCAA TATCTTATC	1920
AGCCTTACCT ATGGTTAGTG GTTCTGTATT TGCAGATAGT GCCCTAATA CAGTAGATAA	1980
AGCAAATGAT ATTGTTTGA ATGTTGATGG GAATAAATTT TATAATGTTT CGGTTTCAGA	2040
AGATATTGTA AATGCTGGTC AAATTTTGA AGATTATTTT TATGTAGATA AATTTGGAAA	2100
TATAAATTA AAAGGCACTC CTGAAGAGTT AGCAAAAAAT ATTGGTATTT CTGTACAAGA	2160
AGCAAGTTTG ATGTATGGAG CTGTAAAGA GTTACCCAAC GTTACGAAA GAGTCCTGT	2220
AGGTTTTCGT TCAATCTTG GTCCTCAAGT GAGGGGATG GGTGGCTGGG CTGCTGGAGC	2280
TTTCGCTACT GGATATGCTG GATGGCATTG GAAACAATTT GCGGTTAATC CTGTTACATC	2340
TGGATTGTT GCTGTAATAA GTGGTGCGAT TGGCTGGCT GTAAAACTG CTGTAGAAAA	2400
TTATTGGACA GTTGCTGTAG CTACAGTAGA AGTGCCGTTT GTGAACCTTG TTTACACCAT	2460
AGATTTACCT TAGAGTTAT TTCTTTATGA ATCATTCTTT TAAAAAATA ACTGTATTTT	2520
GTTTTATAGT TTCTTGTTT CTTGTTTAT TAGACTTAAT GAATTTTAAA AATGTAGCTA	2580
CTTTTTATT TTTCTGCTT CCGTTTTTG TTTTGATTTA CAAAAATAA TAAAAACAGA	2640
GCCTCTGTTT GATGAATTTT AGAACATAGT TAAGTTTAA AAAAAAGTTG ATGTAAAGGT	2700
TTACAAAATA ACTTACTTGT GCTATACTTA AATCACAAGT TAATACAAGG TGAGTGTAC	2760
TAAGTAATAT TAGGCATGAT CACAGGTGAA TTAGAAATCA GCTGATTTTC TAGTTCATTT	2820
GTGGTCATTT TTTGTACTTA TATACCTTTA AGATATAAAA GGAGGTTGAC ATGTATCGAA	2880
TTCTAAATCC AATGAATCAC AATGTCTCGC TTGTCAGAAA TGATAAGGGA GAAGAGGTGA	2940
TTGTAATTGG TAAGGGAATT GCATTCGGAA AGAAGAAGGG GGATTTGATT GCTGAAAATC	3000
AGGTTGAGAA AATCTTTCGG ATGAAGACCG AAGAGTCCAG AGAAAACTTT ATGGCTCTTC	3060
TCAAAGATGT TCCGCTTGAT TTTATCACAG TGACCTATGA AATCATTGAT AAGCTATCAA	3120
AGAAATATCA TTATCCGATT CAAGAGTATC TCTATGTAAC CTTGACAGAT CATATTTACT	3180
GTCTTTATCA AGCTCTAAT CAAGGAAGGT ACAAGGATAG TAATCTGCCA GATATTTCCG	3240

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CTAAGTATCC	TGTCGCTTTT	CAAATCGCAA	ATGAAGCTTT	TGAAATTTAC	CGTCAGAAGC	3300
TAGCAGATCA	TTTTCTGAG	GACGAAATTA	TTCGGATTGC	TTATCATTTT	ATTAATGCTG	3360
AAGGTGAAAA	TGAAGTGGAA	CTTGTGGAGT	CGATTGATAA	GAGGAAAGAA	ATTCTCAGGA	3420
ATGTTGAAGA	AGTTTAAACG	GACTATGCAA	TTCAACGAAC	TAAAAAGAAT	AACCATTTCT	3480
ATGATCGCTT	TATGATCCAT	TTGAATTATT	TCTTGGATTA	TTTAGACAGA	TCTAGAGATG	3540
ATAACCAATC	ACTTCTGGAT	ATGGAAGATC	ATATTAAACA	ATCCTATCCA	AAAGCCTTCG	3600
AGATTGGTTC	CAAGATCTAT	GATGTGATTA	CGCAACATAC	GGGTCTTGAT	TTGTATAAAA	3660
GTGAACGAGT	TTATCTAGTT	CTACATATCC	AACGTTTATT	GTCATAAAAA	TTTATTTAAA	3720
ACTATATAAG	GAGAATTCTA	TCATGAATAG	AGAAGAAGTA	ACATTGTTAG	GTTTTGAAAT	3780
CGTAGCCTAT	GCTGGCGATG	CTCGTTCAAA	ACTATTGGAA	GCCTTGAAGG	CTGCTGAAGC	3840
TGGTGATTTT	GAAAAAGCGG	ACGCTCTGGT	AGAGGAAGCT	GGTAGCTGTA	TTGCAGAGGC	3900
TCACCACGCG	CAAACAAGTC	TATTGACTAA	GGAAGCTTCA	GGTGAGGACT	TGGCTTATAG	3960
TGTAACCATG	ATGCATGGCC	AAGACCACTT	AATGACAAC	ATCTTGTTAA	AAGATTTGAT	4020
GCATCATTTA	ATTGAACCTT	ACAAGAGAGG	AGTTCAATAA	TGAATAAACT	AATTGCATTT	4080
ATCGAGAAAG	GAAAGCCTTT	CTTTGAAAAA	CTATCTCGTA	ATATCTATCT	TCGTGCTATT	4140
CGTGATGGTT	TCATTGCAGG	TATGCCTGTT	ATTCTCTTCT	CAAGTATCTT	TATCTTGATT	4200
GCCTTTGTAC	CAAACCTCATG	GGGCTTTAAA	TGGTCTGATG	AAGTTGTAGC	CTTCTTGATG	4260
AAACCTTATA	GCTATTCTAT	GGGTATTCTG	GCTCTCTTGG	TAGCTGGTAC	AACAGCTAAG	4320
TCATTGACTG	ACTCAGTAAA	CCGGAGCATG	GAAAAAACCA	ATCAAAATCA	GTATATGTCA	4380
ACATTGTTGG	CAGCAATTGT	TGGTTTGTGT	ATGTTGGCAG	CTGATCCTAT	CGAAAGTGGT	4440
CTAGCTACTG	GATTCTTGGG	GACAAAAGGT	TTGCTTTCAG	CCTTCCTTGC	TGCCTTTGTT	4500
ACTGTAGCCA	TCTATAAGGT	TTGTGTTAAG	AACAACGTCA	CTATTCGTAT	GCCTGACGAA	4560
GTTCCACCAA	ATATCTCACA	AGTCTTTAAA	GATGTGATTC	CATTCACTCT	ATCTGTTGTT	4620
TCTCTTTATG	CTCTTGACTT	ATTAGCACGT	TATTTTGTGT	GTTCTAGTGT	GGCAGAAATCA	4680
ATCGGTAAAT	TCTTCGCACC	ACTCTTCTCA	GCAGCAGACG	GATACCTTGG	TATTACCATT	4740
ATCTTTGGTG	CCTTTGCCCT	CTTCTGGTTT	GTTGGGATTC	ATGGTCCATC	TATCGTTGAA	4800
CCAGCTATCG	CAGCTATTAC	CTATGCCAAT	GCCGAAGTTA	ACTTGAACCT	TCTCCAACAA	4860
GGGATGCATG	CAGACAAGAT	TCTTACTTCT	GGTACACAAA	TGTTTATCGT	TACCATGGGT	4920
GGTACAGGTG	CGACATTGGT	CGTTCCATTT	ATGTTTATGT	GGTTGACAAA	ATCGAAACGT	4980
AACCGTGCAA	TCGGACGTGC	TTCAAGTAGT	CCTACCTTCT	TCGGTGTAAT	TGAACCAATC	5040

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TTGTTTGGTG CACCTCTTGT TTTGAATCCA ATCTTCTTCA TTCCATTAT CTTTGCTCCA	5100
ATTGCAAACG TATGGATTTT CAAATTCTTT ATTGAAACTC TTGGAATGAA CTCATTCACT	5160
GCTAATCTAC CATGGACAAC TCCAGTCCA CTAGGTCTAG TTCTTGAAC TAACTTCCAA	5220
GTGCTATCAT TCATTCTTGC TGCCCTTCTA ATCGTGGTTG ACGTTGTCAT TTACTATCCA	5280
TTCCCTTAAGG TCTATGATGA ACAAATCTT GAAGAAGAAC GTTCAGGTAA GTCTAATGAT	5340
GAATTGAAAG AAAAAGTTGC TGCAAACTTC AACACTGCAA AAGCGGATGC TATTCTTGAA	5400
AAAGCGGGTG TCGATGCAGC AAAAAATACC ATCACTGAAG AAACAAATGT CCTCGTTCTC	5460
TGTGCAGGTG GAGGAACAAG TGGTCTCCTT GCAAATGCTT TGAATAAGGC AGCAGCAGAA	5520
TACAATGTCC CTGTGAAAGC AGCAGCAGGC GGCTATGGTG CTCACCGTGA AATGTTACCA	5580
GAGTTTGATC TTGTTATCCT TGCCCCTCAA GTTGCTTCAA ACTTTGAAGA TATGAAAGCA	5640
GAAACAGATA AGCTCGGTAT TAACTAGCG AAAACAGAAG GCGCTCAATA CATCAAATTA	5700
ACTCGTGATG GAAAAGGTGC TCTTGCAATC GTACAAGCGC AATTCGATTA AGGCTAGAGA	5760
CTCTGAAATA GTCTCCCATC GTTACGAAA TCGCTATGGC GAATTCCTTA TTATTAATTC	5820
GTGCGTAAAA AGATATCGTT TTTACCTCCT CATGTCACAA TTCGGTGACT TGGTACAAGA	5880
AGTGAGATGG AGAAGGATGG CTCACTGACT CCTCTCCTCT CACTTTTACT TTATTTAAAT	5940
CAAGAAATAG GTGAAAAAAA TGACAAAAAC ACTTCCAAAA GACTTTATTT TTGGTGGCGC	6000
AACAGCTGCT TATCAAGCAG AAGGTGCTAC ACATACTGAT GGAAAAGGAC CAGTTGCTTG	6060
GGATAAATAT CTTGAGGATA ACTACTGGTA CACTGCCGAA CCAGCTAGTG ATTTTACAA	6120
TCGATATCCA GTTGACCTCA AGCTAGCAGA AGAGTATGGT GTCATGGTA TTCGAATTC	6180
TATTGCTTGG TCACGTATTT TCCCGACTGG TTACGGCCAA GTAAATGCTA AAGGTGTTGA	6240
GTTTTATCAT AATTTATTG CAGAGTGTC CAAACGTCAT GTTGAGCCTT TTGTAACCT	6300
TCATCACTTT GACACGCCAG AAGCTCTCCA CTCAAATGGA GACTTCTTAA ACCGTGAAAA	6360
TATCGAACAT TTTGTAGACT ACGCTGCCTT CTGTTTGTAA GAATTTCCAG AAGTAACTA	6420
TTGGACAACC TTTAATGAAA TTGGACCAAT CGGTGATGGT CAATATTTGG TTGGGAAATT	6480
CCCTCCAGGT ATCCAGTACG ACCTTGCCAA AGTCTTTCAA TCACACCACA ATATGATGGT	6540
GTCTCATGCA CGCGCGGTAA AATTGTACAA AGAGAAAGGC TATAAAGGGG AAATTGGTGT	6600
TGTTACAGCC CTGCCAACTA AATATCCTCT AGATCCTGAA AATCCAGCAG ATGTTCTGTC	6660
AGCTGAGTTG GAAGATATCA TCCACAATAA ATTCATCTTA GACGCAACTT ATCTAGGTGC	6720
CTATTCAGCT GAAACCATGG AAGGTGTCAA CCATATCTTA TTAGTCAATG GTGGTAGTTT	6780

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GGATCTTCGT GAAGAAGATT TTACAGCATT AGAAGCTGCA AAAGACTTGA ATGATTTCCCT	6840
AGGAATCAAC TACTATATGA GTGACTGGAT GGAAGCCTTT GATGGAGAAA CTGAAATTAT	6900
CCATAATGGT AAAGGTGAAA AAGGAAGCTC TAAGTATCAA ATCAAAGGTG TTGGTCGTCG	6960
TGTAGCTCCT GACTATGTAC CACGCACGGA TTGGGATTGG ATTATCTACC CTCAAGGTTT	7020
GTATGACCAA ATCATGCGTG TGAAGAAAGA TTATCCTAAC TACAAGAAGA TTTACATCAC	7080
TGAAAAATGGT CTCGGCTATA AAGATGAGTT CGTTGATAAC ACTGTTTACG ATGATGGTCG	7140
TATTGATTAC GTGAAGCAAC ACTTGGAGGT TTTATCTGAT GCGATTGCAG ATGGAGCTAA	7200
TGTAAGAGGT TACTTCATTT GGTCAATTAAT GGATGTCTTC TCATGGTCAA ACGGTTATGA	7260
GAAACGTTAT GGTCTCTTCT ACGTAGATTT TGAAACTCAA GAACGTTATC CTAAGAAATC	7320
AGCTCACTGG TACAAGAAAG TAGCGGAAAC TCAGATTATA GACTAGTAGA ATTAGTCATT	7380
AGATATAGAA TTTTAGTGAG TCAAAAAGAT GTTCAAAGAT TTTATCCAAT CTATTTATGA	7440
AAAAAAGTTT ATATTATAAA TTTCGAAAAA TGCTCTCAAA TACCGTGTTC GACGAGTGAA	7500
GAATTGAAAA GTCTTGAAA ATGGTATGTC TCGACTGGTA AAGAATGGAT TTGTCATTCA	7560
GATGATGAGC TGGAAGAATT TAAAAATCTA TTTTAAATTT TTATCAATCC TGAAGAATGG	7620
GATACTATCT CCTTTGATTC AGATTTTATG CCGTTTCAAC AATCGTAACC AATTTCTCAA	7680
AAAAGTTAAA TCTTATATTT AGTACTCTGT AAAACTCTTA TCTAATCAGC TTGCTTATAC	7740
TCAATGAAAA TCAAAGAGCA ACTTTAAACT AGGAAGCGAG TCGCAGATTT CTCAATGCAT	7800
AGCTTTGAGG AATTGGGCAA AAAGTCTTTG ATATAGAAAA ACGCATAGTA TCAGGTGTTT	7860
CAACACCTGA TACTATGCGT TTTATTGTGG GAAGATTAC TTTTTTCTT CTGAAATTGA	7920
GTGTTACCC AGGCTCTTTC AGTTTATTAA GGCTTGATGA CTTTAATGTG TTTAGATAGC	7980
TTAAAAAGGA TTGAATCACT TAGTTTAGAA TCTGAAACAA TAGTATCAAG ATTTGATACA	8040
TTATAAAAAG TATAAAAATC AAACCTTATTG AACTTGCTAT GATCTGCGAG TAAATATTTT	8100
TTATTAGAAT TATTTAAAGC GATGCGTTGA GCCTCTCCCT CTTCTCGCT AAAAGTAGCT	8160
AGAGCTCCGT TTTGAATACC ATTACAGCTA ACGAAAGCTT TAGAAAAATG GAGATTAGAG	8220
AGATTTTGTA GGGTCAATGT ACCAACAAAA GCACCTGTAA TATCGCGATA ATTTCCACCT	8280
ATTAAATCA AATCTGTAA TTTTCGTTTC CTTAAATCA GAAAAACAGG TAGACTGTTG	8340
GTTACGACGC GGATATTGTC AATAGGCAAC TCACGCGCAA AAAACTCTAA TGTGTTTCCT	8400
GGTCCAATGA AAATAGTTTC TCTTCTTCT ACTAGACTGC CTGCAAAATG GGCTATTTCT	8460
TGTTTTTCTG CCGTTTGGAG GGCTTGTTTT TCAATATTTG ATCGCTCATT AGTCAAAAGG	8520
GAGTTGGTTC GAAGTTTTTC AGCTCCACCA TGCACACGAA TCAGCAAATC TTTATCAGCT	8580

1127

AATTCCTGTA AATAGCGCCT TGCAGTCATA TCTGAAACGG CTATTTTCGTC CATAATCTGT 8640
TTAACTGTTA T 8651

(2) INFORMATION FOR SEQ ID NO: 182:

- (1) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3786 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 182:

AATCTCCAAT CAGTGCCACT TCAGCTACAA AGAAGAGGAG GATAATAACT CCGTTCACAA 60
GGACAGACAA GAATAATTGA TAGAAGGAGT CGGTTTCACT TGCTTGACTT GGTCTTGTA 120
TGATWTGGAG ACTGGCAAGC AGAATGATTC CAATGCTAAT CACACACAAG AGGGCTGTAA 180
ATCGTAGGCT ATCAAAGAAA GCAAAGAAAC TAGCAATAGC AGTGAGGAGG ATTGGAATTG 240
CCAAGAGTTG ACTATATTGT TGGAGAACCT TGCTAGCGT CCAGTCCTTT TCCTGGTGGA 300
TAAATCGTCT CACAACGAAA CTACCCAAGA GGAATGAAAA GAAGAAGAGT GTTGTGCGTA 360
CTAGGATAGA GATGATAGAA AAAAGAGTTA AAGGAGCTAG CTGCTCAGGG AAGCGACTGT 420
TAATGCTTGC TATATGTCCA TAGTAAGCAT GTTTGATGTG ATAGATACTA AAGAAAAAGG 480
AAGATGCAGA AACAGAATG AGCAAGAGAA AGGCTGTGTA ACTGTGTGTG ATACTTGTTT 540
CCAACCTACT TGTAGGAGAT TTGATCGCTT CCACTAGCCA AGACCAAAAA TCAAGCACTT 600
GCTCTTTCCA TTTATCCCTA GATTTTGGAG CTTGGTCGGG GATATAAGGA CTTTCTAAAG 660
ATTTACTGAT AAGAAGTGGC TCTTTCGTGG TTGCTTTTGG CTGAGGAAGA GCTTCTTGGC 720
TCTCTTCAGC TATAGTGAAT TTTTCTGTTT CTTAGAAAAG GTCTGGCTCT TCTTCAGTAG 780
AATTAGATGC CTTCCTTTCT TCTATTTCTG TTCTCGCTTC ACTGTCTTCA GGAGCTTCAA 840
TTTTCTCTTC TTGCTGGCTT TCCAATTGCA CTTGAGCTTG AGGGACTTCC TCCTCTAACT 900
GAGTATTTTT TTCAATTGGT GTATCGAGAT CGGCTATCGT TTCTTCAGCC TTGCTGCAA 960
CCTCTTGAGC TTGCTCTTCA GGCTTGTTCT TGCTTGTGT TTTTACAAAA TCATTACTTT 1020
CAAACCATTC TTGTTTCATG GTAGAACCTC CTTTTTAGTT AGATAAATAT GTTCCATAG 1080
TAGCAAAATG AAGCGTTTTT GTCAACGTCT GCTTGGTGTG GATATTAGAT CAATATTATC 1140
ATCAGATCTC GCAATGAGTT GATCCTTGAC ATCGGTTTTT TCAGTTTTGT AAGGGTTGCT 1200
TAATTCGGTA CCTCTTGATT CAGGCTTTTC TCTTGTGAAT TGAAGATAG AACCATAGTT 1260

1128

GCTTGAGATG	TCCCAGTTAA	TTCGTTGGCT	TTCTTTCTGG	TCTAGGATGA	TTCTGAGATA	1320
ATCTTTGGCA	GTCAGTTCAA	CCTTGCCATG	GACTTGGATA	TTTTTCAGCGT	GGAAGTGATT	1380
CTCTGTTGAC	TCTAGCTGAC	TATCTGTAAG	AACTGTATCA	AAGATATTAA	CGATATTGGG	1440
CGTTGTGAGT	TTACTGTTT	TGATACGACT	TCCTTCAATT	CGGAGGATAT	AGCTGTTTGT	1500
ATTGAGGGTC	GCATTTTCAA	GGCTAGCATT	TATGATGGTG	GTTTGTCCGC	GATTGGCTGA	1560
GATGTTGATC	CCTTTTAGAG	TTCTCCCTTT	TGGTAGTCGG	AGAATAACTT	CTTCAAAACG	1620
ACTAGAGTAG	CTACTTGCGA	TATGAAGAAT	CCCACCAATT	CCAGAAGAGA	GAAACGGAGT	1680
TTCAGACAGT	TTCTTATCAG	TGAGACTCAG	AGTTCTATCG	TTCTGATTGG	TGATAAGATC	1740
ATGGTGAGCA	GAAAGAGATG	GATGGTAAGA	AATGTGGATT	TGATCATCGA	AAGAGTCTGT	1800
GATGGTGAGC	GTGTGTTGGT	GGAGAGTAAT	TTCTAGGTTT	TCGACTTCCT	TGCCAAAGGT	1860
TAGCTTTTCC	GTACGGCTAT	CATAGACAGG	TTCTTTGGAC	ATGGAAAGTA	GGCTCTTAAT	1920
CCCCTCAGAT	TGGATACCTA	CAAAAAGCAG	GATAAAGCCG	ATAACGGTAG	TCACCACACC	1980
AAAGATGAGA	AATCCTTTTG	TCCATTTACG	CATGCTGATT	ACCTCTCTTT	CCTTTTTTAA	2040
GAACAAATTG	TACCAGACGA	ACAATGAGTA	GACCGAAGAA	GCGAGTTGCA	TAGGAAATGC	2100
CAAGTAAAC	TAGCGAAGAA	GCACCGATAG	CCAGTAAACC	AGAACCAGAA	ATCAAGATAA	2160
AGGCTGATTT	GGCTTGGGCG	AGGACAGTGA	AACTTTCAAC	TAAAAATAGG	AATCCGCCGA	2220
TGATACCCAG	TATGGAACT	GCAAAGAAAG	CCAGAATGAC	AGTCAAAGCG	GCTACAAGAA	2280
TTGCGAACAG	GGTCACGAGG	ATGGCGATTG	CCAGAGGAAT	GCCGATAGGT	GCTGCAAGGA	2340
GGGCTAACAA	GGCGATATGT	AAAATTGTG	GGTTATTTTT	TTGAGCGGGT	GCTTCATTGA	2400
TTTTTTTATC	GAGAAGATTG	GATAGAACTT	CGTGGGCCGC	TTCTTTGGGA	GTTCCCAAAC	2460
TAGCGATGAG	TTCTTCTTCT	CCTTCGACTC	CAGCATCGTC	AAAGAGCTCT	CTGAAATAGT	2520
CCATGGCTTC	GATACGGTCA	GCTTCAGGTA	GTTTCTTGAG	ATAGAGTTCT	AGCTGAGTCA	2580
GGTATTCAGT	TCTTGTCATG	GCGGATACTC	CCTTCTATGA	TGCCATTGAT	GGTGTCTGTA	2640
TAGAGTGCCC	ATTCACTTTT	TAGGGTCAAG	AGCTGCTCTA	TACCACCGTT	TGTCAAGGAG	2700
TAGTATTTCG	GCATGCGACC	TTGGAATCTT	CTAGAATAGG	TTGTCAGAAA	GCTATTGCCT	2760
TCCAATTTTT	TGAGAATGGG	ATAGAGTGTG	GATTCTTTGA	TATTAGCGAT	CAGCTTAATG	2820
GTTTGGCTAA	TCTCATAACC	ATAAGAAATCA	CCCTGCTCCA	GTACAGCCAA	GATGAGAAAT	2880
TCAATCAAGG	CAGAGGATGT	TGGAAAGTAC	ATGGGAAACC	TCCTTTTCTA	ATGTGTAAGA	2940
TTTTTATATA	TAATTTTCT	ACACATACAT	TGTACATCTA	AAAGAAAGCC	CTGTCAAGAG	3000
AAATGTGTAA	AATTTTATA	TATAAAAAAC	TTCTAGCTAA	AACTAGAAGT	TTAAAGGATC	3060

1129

TTATCCGCTC TGTCCACTGT AAAGAGGGCC ACAGTCATCA GGATATCGAT GAGCAAGAGG	3120
GCAGCTACAG ATGGTACCCA AGAGTGAAC AGGTCAAAAC TGTAACCAA GAGGGTTGGC	3180
CCAAAGGCTG CTAGGATATA GCCTCCTGTT TGAGATAGGC CGGACAATTG GGCTGTCTTT	3240
TCAGGGGCGC TTGTCTTGAG TGAAAAGTTG ACCATGAGAT AAGGGAAGAG GGCACCTGGT	3300
GCGGTTCCGA TGAGGAGATG GATGGCAAGC CAGTAAATGA AATTATTGAT TGGGAAAAAG	3360
AGCATGGAAG TGCCGACCAC ACCAGCTAGT GAAACCAGAG TGAGCATGAG CTGACGGTTG	3420
CGAGTAGATA AACTGGTTGT CAGGCTTGGG ATGGTCATTG AAAAAGGAAT GCTAATCAGA	3480
GATAAGATAG AAGTCAGCAA GCCAGCTTCG TGACTGGATA GACCTGCATG GATAGACATG	3540
GTAGGTAACC AGGTCATGAC GGTGTAAAAG ATCAAGGATT GAAAACCTGA AAAGATAATA	3600
ATTGCCCAAA CCTGTTTATT ACGCATGACC TTTATTTGAC TTTTGTGTTT GGTGTGTGGA	3660
GCTAGTCTAT GATTATAGCG GTGATTTGGG AGCCAGACCA AAAAAGTTGC TAGACAGAGT	3720
AACGTGAGGA GAAGGATAAG TCCTTTCCAA GAACTGGCTT GTGTAATGGG CACAGCTAGA	3780
TAGGAA	3786

(2) INFORMATION FOR SEQ ID NO: 183:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3054 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 183:

TCAGCTAAAA AACATTGCTA AATTGATTGA AGCTGGTGCT ACACATTCCG ATTCAACTTC	60
TCACACGGCG ACCACCAAGA ACAAGGTGAG CGTATGGCAA CTGTTAAACT TCGCGAAAAA	120
ATTGCAGGTA AAAAAGTTGG TTTCTTCTT GATACAAAAG GACCTGAAAT CCGTACAGAA	180
TTGTTGGAAG GTGAAGCTAA AGAATATTCA TACAAAAC TGAAAAAAT TCGTGTGCA	240
ACTAAACAAG GAATCAATC AACTCGTGAA GTGATTGCGT TGAACGTTGC TGGTGCTCTT	300
GATATCTATG ATGATGTTGA AGTTGGTCGT CAAGTTTGG TTGACGATGG TAAACTTGGT	360
CTTCGTGTGG TTGCTAAAGA TGATGCAACT CGTGAATTTG AAGTTGAAGT TGAAAACGAT	420
GGTATCATCG CTAACAAAA AGGTGTGAAC ATCCCTAACA CTAATAATCC TTTCCAGCT	480
CTTGCTGAAC GCGATAACGA CGATATCCGT TTCGGTCTTG AACAAGGTAT CAACTTCATC	540
GCAATTTTCAT TCGTACGTAC TGCAAAAGAT GTGAACGAAG TTCGTGCAAT CTGTGAAGAA	600

1130

ACTGGAAACG GACATGTTCA ATTGTTTCGCT AAAATCGAAA ACCAACAAGG TATCGATAAC	660
TTAGATGAAA TCATCGAAGC AGCTGATGGT ATTATGATTG CTCGTGGTGA TATGGGTATC	720
GAAGTACCGT TCGAAATGGT TCCAGTTTAT CAAAAATGA TTATCAAGAA AGTCAATGCT	780
GCAGGTAAAG TTGTTATCAC TGCAACAAAC ATGCTTGAAA CAATGACTGA AAAACCACGT	840
GCAACTCGTT CAGAAGTATC AGATGTATTC AACGCTGTTA TCGACGGAAC TGACGCTACA	900
ATGTTGTCAG GCGAGTCTGC AAACGGTAAA TACCCACTCG AGTCAGTAAC TACAATGGCT	960
ACAATCGACA AGAACGCTCA AGCTCTTCTT AATGAATACG GACGTCTTGA TTCAGATTCA	1020
TTTGAGCGTA ACTCTAAGAC AGAAGTAATG GCTTCTGCTG TTAAAGATGC TACTAGCTCA	1080
ATGGATATCA AATTGGTTGT AACTCTTACT AAGACAGGTC ATACTGCACG TTTGATTTCT	1140
AAATACCGTC CAAATGCTGA CATCTTAGCA TTGACATTTG ACGAATTGAC AGAACGTGGC	1200
TTGATGTTGA ACTGGGGTGT TATCCCAATG TTGACAGATG CTCCATCTTC AACTGACGAT	1260
ATGTTTCGAAA TCGTGAACG TAAAGCGGTA GAAGCAGGTC TCGTTGAGTC AGGCGATGAT	1320
ATCGTTATCG TTGCTGGTGT GCCAGTAGGA GAAGCTGTTT GCACAAACAC AATGCGTATC	1380
CGCACAGTAC GTTAAGAAAA ATATAAAAAC CTATCATATC CAGCTTTAGA GCTTGTGTGA	1440
TAGGCTTTTT GTATAGAGGG TAAGAAATAG GCAAACTTTT CATAATGGAT TGATACTCTT	1500
CGAAAATCTC TTCAAACCAAC GTCAGCGTCG CCTTACCGTA TATATGTTAC TgACTTCGTC	1560
AGTTCTATCT ACAACCTCAA AGCAGTGCTT TGAGCAACTG CGGCTAGCTT CCTAGTTTGC	1620
TCTTTGATTT TCATTGAGTA TGAAATAAGA TATGCACAAA TTGATTAGAA AGTCAAATGA	1680
ATTTCTACAA ATGTTTTAGC AATCGTAATG TACTTGCTA GATTCGATCT GATATATTTT	1740
CGATTTAATG ATATGGTATT TAAAACCTCC AAAGTAGCTT ACTCCATTCT TTTACTTACG	1800
TGAGTGTAGA TGTATTATAC TGTTTTAGCG TTTTGTGTTT CCACTCTAAC CATTATAGCA	1860
TTCTTCTCAG CTAGTGTACT AAGGAGTGTG TGCCTGAAAA TATGGGAACT AAGGGGCTGG	1920
TTTATCGGTT TCTCTAGTTT AGTATTTGCC TTTTGCAAAG TGATCTTAAA TGCCTTTCTC	1980
TAAATTTACA TATCACTATT GTTTAACAAA ATCTAATCTA TTTTAGGTCA CTTATTCTTT	2040
TTTTGAAATG TAGAATGAAC TTTTTCAAAG TTTTTCGAAT CTTTAAAAAT CTGTTTGCTT	2100
TATATCGCCA TTCTCCCCC TTTTTTAATT CTCCCTATAT AGCCTGACAG CTTTCCCGAT	2160
GGTACGAATA TGTTTGCTTT CGTCTAGGTG GATGTCGGGG TATTCCGGAT TGAGTTTTTT	2220
TGAGGCAGCC TTGGCGGAGT TTCTTGACAT AGTTAGTGCC GTCTACTTGG AAGATGCCGA	2280
TGGTATTATA GTCAATCTGT GGGGTATTCT TGATAAATAG GTAGTCGCTG TTTCTTATCT	2340
TTGGCTCCAT GGACTGCTG ACGACATAAG CGATTGGGTC GTAGTCGTCT GGGATAATGG	2400

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AAACTCCATA TCTAAATCGT TGTCCTGCAT CGAGCGGCTA CCTGCAGAGA TAAACTACCT	2460
AACACGAGAG TAAGTAGTCT GTCTGTAGTC GTCCAGTCTG ATGATTTTTC CGATACTTCG	2520
TTTTTCTGAT CATAAGTTG CCTCTCGGCA TAGGTCAGAA CTTTACCTTG TCTGGGTGGT	2580
TCCCGTTGGT CGTAGATAGA TTGGATATCG CTAGGAGAAT CCTTTTGAAC TGGAGGAAAG	2640
AGGGCATCGA TCAAGCTACT GAATACTTTA ACTAAGTCAA ATATAGTATT TTTCTTAGTA	2700
GACCTAACCC TTTTTCATA ATTTCTAATG GTGTTTTTAC TTATACCTAT CTTAGTACCC	2760
AATTCCTATT GAGTCCAACC ATTACTAGTC TATATTGTTT TATAGTTGAT TGAGTTTGGG	2820
ATAGTAGGCT GTAGCTGCTA AAACATTTCT AGAAATTAAT TTGACTTTCC TAATAGAGTT	2880
GTCATATCT TATTTCAATC TATTATGTTT TTCACCTCTA ACAATCGCAA TCTCTTCTTT	2940
ATCCATGAAT GAAATCGCTT TCTATTTTGG TAAGTAAAGC ATAACACGAA ATCCACGAAA	3000
ATGAAAACCT TTGTTGTGTT TTCGTAAAAA ATTTGTTGAC AGAGCACGAA ACGC	3054

(2) INFORMATION FOR SEQ ID NO: 184:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1590 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 184:

TGTGATTTTC yGAAAATTG GTAAAATATA TCTTAATCAT TITCAGGAGG ACAAAAATTT	60
GACAAGATAT CAGAATTTAG TAAATGGAAA ATGGAAATCA TCTGAACAAG AAATTACGAT	120
TTATTCACCA ATCAATCAAG AAGAATTGGG TACAGTTCCA GCCATGACTC AGACTGAAGC	180
TGATGAGGCT ATGCAAGCTG CGCGTGCAGC CCTGCCAGCA TGGCGAGCTT TATCAGCAGT	240
TGAACGTGCG GCTTATTTGC ATAAAACAGC AGCTATTTTA GAACGCGATA AGGAAGAAAT	300
TGGTACTATC CTTGCCAAAG AAGTAGCAAA AGGGATTAAA GCAGCAATTG GAGAAGTAGT	360
GCGTACAGCA GACTTGATTG GTTATGCTGC TGAGGAAGGT CTCCGTATCA CTGGACAAGC	420
AATGGAAGGT GGTGGTTTTG AGGCAACAAG TAAAAACAAA CTGGCTGTTG TCCGTCGTGA	480
ACCAGTTGGT ATCGTGCTAG CGATTGCTCC CTTTAATTAT CCAGTTAATT TATCTGCTTC	540
TAAAATTGCA CCTGCCTTGA TTGCAGGGAA TGTGGTCATG TTTAAGCCAC CAACACAAGG	600
TTCCATTTCT GGACTCTTGT TGGCTAAAGC ATTTGAAGAA GCAGGGATTC CGGCAGGTGT	660
TTTCAACACC ATTACAGGTC GTGGTTCAGA AATTGGGGAT TATATCATTG AGCACAAGA	720

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AGTCAACTTC ATCAACTTTA CAGGTTCAAC TCCTATTGGA GAACGTATTG GTCGTTTAGC	780
TGGTATGCGT CCTATCATGT TGGAACTTGG TGGGAAAGAT GCAGCTCTTG TACTAGAAGA	840
TGCAGATTTG GAACATGCTG CCAAGCAAAT TGTTGCGGGA GCCTTTAGCT ACTCAGGACA	900
ACGTTGCACG GCCATTAAAC GTGTCATTGT TCTCGAAAGT GTAGCAGATA AATTAGCTAC	960
TTTGCTTCAG GAAGAAGTTT CTAAATTAAC AGTTGGTGAT CCATTTGACA ATGCTGATAT	1020
TACACCTGTT ATTGACAATG CTTCAGCCGA CTTCAATTGG GGCTTGATTG AGGATGCACA	1080
AGAAAAAGAA GCTCAGGCTC TTACACCAAT CAAACGTGAG GGCAATCTTC TCTGGCCAGT	1140
GCTTTTGGAC CAAGTTACAA AAGATATGAA AGTGGCATGG GAAGAGCCAT TTGGTCCTGT	1200
TTTACCAATC ATTCGTGTGG CTAGTGTAGA GGAAGCTATT GCCTTTGCCA ACGAATCTGA	1260
ATTCGGCCTT CAATCATCAG TCTTTACAAA TGATTTCAAA AAAGCCTTTG AAATTGCTGA	1320
AAAAC TTGAA GTAGGTACAG TCCACATTAA TAATAAAACC CAGCGTGGTC CAGATAATTT	1380
CCCATTCCCT GGTGTCAAAG GTTCTGGAGC TGGAGTGCAA GGAATTAAAT ATAGCATTGA	1440
AGCGATGACA AATGTCAAAT CCATTGTTTT TGATGTGAAA TAACGTGTAA AACCAGGAAA	1500
TTGTTTTCCT GGTTTTATTT TTTTGCTATA AAATAATAAT AATTATAGAA AAAATACGAA	1560
CTTTTGGTA TTATAATAGA TTGAAACCGG	1590

(2) INFORMATION FOR SEQ ID NO: 185:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4848 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 185:

CCTGCAGTTG TCAGACCTGT AATTTTCTTT TTATCTGTAA TAAGAATCGT TCCAGCGCCT	60
AGAAAACCCA CACCTGATAT AACTTGAGCT CCTAATCGTG TAGGATCTCC TGTCCCAAAT	120
TTATAAGATA CGTATTCAAT CGTCATCATA ATCAAACATG CAGCTAGACA AACAACTACTA	180
TAAAGTCGGA TGCCTGCAGG CTGGGATTTG CTCCCTCTCT CTAAACCAAT TATACTACCA	240
ATGACTACTG ATAAAACAAT CCTGACAACT ATTTCAATAT TTGATAACCC AAGACTAGTG	300
GCTGTCATGA TTATTTCTTT ACTTTACGCC CCGGCTTTTG TGTGAAGTAT AATACCGTTC	360
CAGAAATAAT CATCAGAACA ATTGTATAAA CAAATACCAG AGCTTGTGCA TTAGATGTTG	420
CTGTTTCATC ACCTGCAGAT CGAATCGTAA TACCTAATGG TTGAGCTAGG GGATGGTAAA	480
GGAATACAGA TAAGTCGAAG TCAGTTAATA AAGAGTTAAA GTTTAAAGCA ATAACAGAGA	540

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GAACAACCGG TAAATAAAT GGAATGATAA CCTTCATCAT AGTATAAAAA GGTGAAGCAC	600
CCATACTTCT TGCTGCATCT TCCATCTCAT CATCAACACT AAATAAAATA GCACGTACCA	660
TTCTATAAGA AAATGGGATT TTTACAACATA TATATGCAAT AAGTAGAATT ACCAACTAC	720
CTACCAAAT CTGATTCAAG ACAAGAAATT GTGGCTGATT AAAAGTAAAT AATAAACTTA	780
CTGCTAAAAG TGTACTTGGT AGTAACCAAG GAAGTAGAGC ACCATATTC AATAAGAAAT	840
CAAAACGAGA TTTATGTTTT CTGACAACAC GAGCAAATAC AACTGCGAGA ATTGTTGCTG	900
TTGTCGCAGC AATAATAGAA TAAATAAAGC TGACCAAGAA TGGAGAGAAT GCCGCACTAT	960
TACTAAAGAA TAAGCGATAA TTTTCTAAAG TAAAGTTGA TAATGTTAAG TTACCTGTTT	1020
GAATTGCAAC TGGATCTGTA AATGAGTATA ATACTATAAA AATTAGTGGA AGCATGAAAA	1080
CTGTGAACAA TCCATATGCT ACAATGTGAG CAATGATATT CCAAGGCTTA GACGCAATTT	1140
TTTGTTTTTT AAGAGGCGCT TTAGTCTTAG AGATAGAAAT ATAATTTCCTA CCTTTTCTA	1200
TCTTATTCAT GATAGTAAGC AAAATTGTAG TTGCAATACC TAAAATAATT GCAAGTAGGG	1260
CAGCTAAATC ACGAGAATTC CCCATCCCTG CAAATGTAAT AATCATTGGA TTTATAGTTT	1320
GAAATCTTTT ACCACCAACA ATCATGGGTG CTGCTACTGC AGATAAACCA CTAAGAAAAA	1380
CCATAATAGT AAGTGCAAT AGAGTTGGAA TTAAGGTTGG TAACACTACT TTTCGGAAAA	1440
CAGTAAATGG TTTTGCTCCC ATATTTCGAG CAGCCTCAAT AGTGTGATAG TCAACGCTTC	1500
GAATGTATTT TGTAAAAAC AATGTATGAT TAGCAGTTCC TGAAATGTC ATAATGAATA	1560
AGACTGCACC ATACCAATA AACCAGTTAG GGTCTAAGA AGGGATAACA TTTTGTAATA	1620
ATTTTGTAAT CAATCCATAA GGACCATAGA CAAATTTATA TCCAGTCGCT AAAACCACTC	1680
CTCCATAAAT TAAAGAGGTC ATATAACCTA ATTTTAAAT TTTAGCACCT TTAATATCAA	1740
AGTACTCTGT AAATAGAACA CAAAGAATAC CTACGACATT AACTGTAATA ATGAGTGAAA	1800
ATGCTAACTT AAAACTGTTC ATAATACTCT GAAGTGCCCT CTGAGATTTT AGAACACGAT	1860
GTACAGCATC AAGGGAAAAT TCTCCTCCTT TTACAAATAC ATTCACACT AGATCAAAGT	1920
TTGGATAAAT AATAAATGTT ACTAAGAACC AGATTAACCC TAAACGAATA AGCCAATCTT	1980
TTAAATTTAA TTTATGACGC ATACTGCACC TCCTTAAAT TGCAGAACGT CTGATGGTGT	2040
GATAAATAAT TCCACACTTT CTCCGACAGA TCTAATAGCA GCCTGACTAT CAATACTTGT	2100
TACATTAGA ATCTGACTTT CAGAACTTT TATTGTATAG TGAATTGTAA CTCCAGAAAA	2160
CTCAACATCA ATAATTGTCC CTTTGTAGAT AAAATCTTGT TCAGTTTCAC GATTGAATCG	2220
AACCTTCTCT AATCGAATGT ATCCTTTTTT ATCCTCTAAG AAAACGCTTG TATTTTCAA	2280

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TAATACTTCG TGGACTGTTT CATCGGTCAA AACATTAATA TCTCCAATAA AATCACATAC	2340
AAATTCAGTT TGAGAATTAT GATAAAATCTC TACTGGTGTA CCGACCTGTT CGATGTATCC	2400
ATTGTTAAAG ACTGCAATTC TATCAGATAA AGTCAAGGCT TCCTCTTGAT CATGAGTAAC	2460
ATATAAAGTA GTAATACCTA ACTCTTTTGG AAGTCTTTTC AACTCTTTTC TCAAATCTAC	2520
ACGTAATTTT GCGTCAAGGT TTGACAATGG TTCATCTAGA CAAAGAATTT TAGGTTCAAG	2580
AACCAGAGCA CGAGCCAATG CTACCCCTTG TTGTTGACCC CCAGATAATT CTGATACATT	2640
ACGCTGTAAC TGTTGATCAG AGATCTTAAT TTTTGCTGCC ACTGCTGATA CTTTAGCTTT	2700
AATAACATCT GGAGCTACCT TCTTAACCTT TAAACCAAAT GCAATATTAT CAAAAACAGT	2760
CATAGTTGGA AATAGCGCAT AAGATTGAAA TACAATACCA ATTCCACGCT TTTCAGGTTT	2820
CAAATGAGTG ACATCTGTTT CATTAACCTC AATACTTCCT GATGATGGAT CTAGAAAACC	2880
TACCAATGCT CTCAAAGTAG TTGATTTACC ACATCCTGAA GGCCCAAGAA ATGTAAAAAA	2940
TTCCCTTCA TGTATATCTA AATTCAGATT ATCAATTGCA ACAAATCAC CATATTTAAT	3000
TTGAATATTA TCAAATTAA TCATCTCACT AACTCCCTCT ATTACTAAAC CAAAAGCCTC	3060
TCTTTATTTT TTCCATAAAT TTAGAAATAA TAGAGAGACT TGGACATAAA AATTAACCTT	3120
TATTTCTTAT TGTACGTATT CTAATTCAGC TTTTCTTACC CATTCATCCA AATGCTTTCC	3180
AACAGCTTCC CAGTCAATAT TTTGTGGTTT CACTTGATCA ACAAATTTCT TCGTATCTTC	3240
AGGTAGATCT TTGAGGGCAT CTTTATTTGC AGGAATAGAT CCAAAGTTCT TACTATATTC	3300
TACTTGAATT TCTGATTGAC CAAACCAATC AATAAATCTT TTAGCTAACG CTGTTTMTT	3360
ACTAGTGCTT AAAACCATAG TTTGTTTCACT TACAAATGGT ACACCAATCT CAGGAGTCAT	3420
AACTTTGAAA ACAACATTTT GTTCTTTTGG TCCAACCTAAT GCACCAGAAC CCCACATCAT	3480
TCCATATTGT ATTGGATCTT CTTTGTCTAA CATCTTAACA ATTGAACCTT CTCCCTTTTG	3540
AAGAGTGTAT GCATTTTTC AATATTCTTT TGCTACTTCC CAACCTTTT CGGAAACACC	3600
TAATTCACCT TTATCATCAA GGTATCGAAC TAAGATACTT GCTAGAATTG CCCGTCCTGT	3660
ACCTCCTTGA AGACCAGAAA TTGAATATTT ACCTTTATAC TTACTACCTA ATTCAGTCCA	3720
ATCTTTAGGC ATTTCTTTTA CATCAGGCGC CCCAATTAAA ACTAATGGTT GAACAATCAC	3780
AGGATTATAA TAATTATCTT TATCTGATAA AGATTGATCA ATTTTATCTA ACCATTTAGG	3840
CTTGTAATGT ACTAGTAATT TTTGATCTCT AATTTTATTT GAATCAACAG CACCAATTCC	3900
AAATACCATA TCTGCAACTG CATTATTCTT CTCAGCAATA ACACGGTCTG CTAATTGAGC	3960
GCCAGCGATA TCAACCATTT TTATATTAAA ACCAGCTTCT TTTGCTTTAG CAGTTAACCA	4020
ATCACCACGA CCATTTGAGA CTGAGTTCGA ATAGATAACT AATCTTTGAC TTTTATCAGC	4080

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TTTTTCTTCA GATGAAGAAG CAGTCGTAGA ATTTGAACCT CCAGAGCAAG CAGCAAGTGT	4140
AGTAAGAGCA ACTCCCGTTG CAAGTACAGT AGACCAAACCT TTCATTTTTT TCATGATAAG	4200
TTCTCCTTTT TTATTATTTT ATTTAAATTT TTCGTGATAT GGAACAAATT GTCTCATATC	4260
TTCAAATACA GTATAGTCAA TACGGTTTAC AGTAATAGTT GGAATCTTCT CTAATAAAAT	4320
TTCAGTTAAT TCTGCTCTGA CTTTAGTAAA CTCCTCTTCC TCCTCTTCGG TTAGAGGAAT	4380
CCGAAGATAC CCAATTGAAA TATGGAATTG ATATCTATCA TGATTAGGGA AACAAACACC	4440
TGCTTTTTCT GAGACATAAG TACGAATTC TCTAATCTC TTTGCAGAAG CTTTCATCTGC	4500
AGGTTCAACT AGTATGTTTT GTTTTCCCAT TTCAGTTATA CGCATATGAA TTTCTTCATC	4560
CAACAATGGA AAAATTTCAA GTTGTTTAGC AAAGTAATCA TGTATTTCTT GTAAAGGTGT	4620
ATCTAGAGGA AGATTACTGC TCCAAAACCT gTTCACGATT TTCATGGCAC AACAAATCAA	4680
TTACAGTCAT GTGAATAGAA TTCCTTGGAG TTAAAGTAAA CTTATCGATA AATGGTAATT	4740
CTCTATAACG TGATTGAATA ATATCAACAA CTTCCATCAA ATCTTGTTTA GTATAAAGAT	4800
TTGTCTAACG TGTATTTCCA GGGAAATGAT TAAATTCCTC ATTCTCGG	4848

(2) INFORMATION FOR SEQ ID NO: 186:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3763 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 186:

GTTATAAGCA ACACCTTCTT GCTTGCCATA AGTTGTGAAA TGGGTAGAAT CGATATCTAC	60
AATGAGTTGG TTTAGCTGGT GAAACTGTAA AAAGAATTCG ACCAATTCAA GGTGAGGCA	120
TCGCAAACTA TGGACTGTTT CCTCGTCAGT TCTGGAAAGA AAACGGGATA AGGTGGCTG	180
TGAAGCAAGC TGCCCTCCTT CCAATAATTT TGGAAAGTAG GCATCAGCTG ACAATTCCTT	240
ACAAGCATAG TCCGTTCCAT AACCTGTTAA CAGTTGAAAG AGGAACTGGA CAAGGATATC	300
TGAATCCGAA TAACGACAGT AGCGGCGTTG GTCATTCGTT ACTAAATACT TAGAAATCCG	360
CTCTTTTAGT TTCAACTGGG AAAAAAGTTC CTGAAAAAAG ATAAGACCAC CATACTGGGT	420
TAAATGACCT CCATCGAAAG ATAGTTGGTA AAAAGACTTG TTTTGAAGT GATGATTGG	480
TAAACTGTTT ATGTGAGTTT CCTTTCCTTT TGTGTTTTTT TCTACACTTA TACCATAAAG	540
GGGAAACTCT TTTTGTCTA GTAAAAACA CCCATTGGGT GAAAAAGAA ACCATCCAGG	600

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ATCTAAGCTA AGGCAAGGAT TCTGGATGGT TTTTAGATTT GGGGTGAATA ATTGGGGATT	660
TAGGAGAAAT GATGGTATCT TCCAAATCAA AATCAACTTC ACTCCATAGT CTCAACTGAT	720
TGATTTTCCC ATCTTGATAG GTCACATCCT TGTCAAGGAT AAAC TGAGTC AACACCTCAT	780
GTTGACCTTG ACACCTGATG TCATCTACCA AGAGCCAGAC ATCCTCTACC AACATGAGGA	840
TTTTTCTCCT GTGAAGATAA GGCAAAATCAG GTTCTGCTGA CCAATAAGCC CCCTCAATAT	900
AATGCACTCC CTCCCTTTCT TTATGGTGAC AAAACAGGGA GTGAGGATAG TATTCATATT	960
CCCAGGATCC CGTGATTCTT TCCGGAGCTT TCCCATCTAC AATGCAGGTC GAATGACTCC	1020
AAGCACTCTT TAAGAGATAA CGTTCATATA TCTCCCGATA AGAATAACGC CCAGCATCTA	1080
TGAAAATAGG TTGGCCTTGA TACTGTAAGC AAAA ACTATT CTCGTCCTA TGACTATGGG	1140
CACTTCCTAG CGGACCATTT TTGAAAAATA GATAACGATG TTCATCCTTA ATGCAGACAT	1200
GTCCAGAGTC TTCAAAGATC ATGGACTTAG GCTGCCAAGC TCTCTTTTCA AATTCCTGCA	1260
GTCGCTTGAC CTTTCTCGC CCCAGGAACA AGAGGCTAAG CAAATCAACT TTAACATCCA	1320
GACCGTTAAG AAGGTCTTCC TGGTTCAAAA CCACAGCAGA CAGGCTCAAA ATTTCTGTCG	1380
TTTCTGTAGA ATCGCTATCA CCAAAAGCCA AAGTCCGTCC ATCTAAGCCT GTCATCATTT	1440
GAATATAGGT CGCCATCTTT TCCAGCAACT CTTGGTAACT ATCTTGCAAG TCTGGAAGCA	1500
AGAGACACAA ATCCAGCAAG GCTTTATAAA CCTCTACATG ATAGAGAATC GACTGTTCAA	1560
ACTGGCTTCC ATCTCCTAAA ATCTGTGTCT CAATTTGCTG TTTCAACTCC TCTGAAGCAA	1620
AATGGTAAGC TTCTTCTAGA TCCATCTTAT CTGAAAAGAA ATGATAGATA GCAAGCATCG	1680
GAATTGTTTG TAAATCCCC CAGTTACTAA GGGTGACTT GGC GCGATAG TAGCTTTTCA	1740
TAAAGTCAAT CTGCTTTTCT AGACTGACCA AAATTTTCTC TAGTCTTTC TCCTCTAGCA	1800
AGTCAAATTT CAAGAGGAGC AAGAGTAGTT TCAACCAAGT AAAGGAACGA ATACCCGTAT	1860
CCAAGGTCT AGTCATCAAG GATTGAGGAG AAAATTCTCT CACCTGCTCA ATCCAATCAA	1920
ATAGAAAGAA CTTGCACTTT TGAATATAGT CCTTATCTCC TTCTACCAGA TACCCTATCA	1980
TAAACTGCAA GAGATATTCT TGTGATTGA GCATATAAGA CCATTCTGGA TCATCTTCAA	2040
ATACTTGATC CCATACCATC GGCTGGATTT GATGGATTTT TGAACAAGGC TCCATATCCC	2100
AAGGACTATC AAACATAAAA CGATTGTCCA TCAAGCGTTC AAGGGAAC TC TGACTTTCT	2160
CATAGTCTTT TGAACAGTGC GACAAGATAT AATCACGACA TTGATTTC CA TCGACTCTTT	2220
CAAAAAATTG TCTTCTTCT TCTTTCATTA TCTATTACCA GAAAAAGAAC TACTTAAAA	2280
GCAGTCTTT TGTCTTTCCC ATTACACTTT CCTTTCTAC ATGGATGACC ACACCTTTTG	2340
CAATCTGCAA GGAGACCAAG TCATCTTGGG TAGAAATGAT TTTTCCATGA ATTCCAGACA	2400

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ATAACAACAC TTCATCACCA AATGTTAAAG AAGCTAAATA CTCTTGTCGT TGCTCCATCT	2460
GTTTGCGAAG CAACFTTTGC TGACGAATAG AATGAAAGCT TGACAGTAAA AGGGGACTCA	2520
CTGCCAAGAC AATCACTATT CCATAAAACA ATGTTGTATC CATTAAAGCTA TAATCTTAAG	2580
CCAGCTCCG ATAATTCGGA TGATAACTGT TAAAATAACG AGTTTATATG TTGTCCATTT	2640
CTTTTCTTTG ATCAAGTAGT AAACATAAAG TGTAATAGG GCTGGTAGAA GAGCTGGAGC	2700
AACCTTATCA AGCATTCCTT GAATACTTAC GATACTTTGT TTAGCGTCTG CTTTAACTTC	2760
CCCTGCAGCA AAGGTAATCG GCACCATAAT CTTAACAGAT GTCGCTGCCA AACCAGCAAT	2820
TACGtTACAC CGATAATATT GGCAATACGA GAAATCGTTG CCATCTGTTT GCTTAGTTTA	2880
TCAATCACAG TTGTTCTTAG TTTGTATCCA TACAGACCAG TTGACAATT AATCGCTGTT	2940
AAAAATCGTAT TCATCGCAAG GAAGAACAAG ATTGGACCGA CAACCAAGCC TTCTTGAGCA	3000
AACGAAGCTG CGATGGTTGA GAACAATGGA GCTAAACAGA ATTGAGAAAG AGAATCCCCA	3060
ATACCTGCCA ATGGTCCCAT CAAGGCCATC TTGATGCTAC GTGTTTCTTT TGCCGGACGG	3120
CCATTTTCCA ACATTACAAG ATGCAAGCTG GTAATAAAG GCAGGAAGTG TGGGTGGTA	3180
TTATAGAATT CACAGTTTTC TTCCAAGGCT TGGTAGAAAC CTTCTGATC CTCTCCATAG	3240
TGTTTTTTCA AAGCAGGATA CATCACATG GCATATCCCA ACCCTTGATA GTTACTATAG	3300
TTAAATCCAT TTGACAAAA GAATGCCCGC AAAGACGTTT TAAGATAATC ACGTTTGT	3360
AATTGTAG TAGCAGTCAT CGTGTGCTTC CTCCTCTACC ACATGATCCG CTGTTTTTGG	3420
CTTGTTATAA AATTCAATCA AAGCAAAGAT AGTACCTACA ATTGCAATAC CAATTGTTGG	3480
GATGTTTAGA TAAGCTGCAC AAACATATCC CAACAAGACA AAGGGAATCA ACTCTTCTT	3540
AGCCATCACT GACAAGATCA TCGCAAAACC GATAGCTGGG AGCATTTTAC CAGCAACTGT	3600
CAAACCTGTA AGTAATACCG GTGGAATGTA GTCTACGAGT TTCAACAAGG TATCCATTGA	3660
AAGGGCACCA AGCAACCCAA GGTAATCCA ATAAAGGCAA ACAACCAAAT TGTTGCATTT	3720
AGAGTGAAC TAAATTTCTT CAAATTATGG TTTTCAAGT GCT	3763

(2) INFORMATION FOR SEQ ID NO: 187:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5053 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 187:

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CAATCTCTGA GTATGTGCGG TCAATACTAw CAAAGGGAAT yCCTGACGTC AAGTAATGTT	60
CAATTGGmCT ATAGGTAATG GCAACCACTC CATCAACTTT ATTATGACGC AACATCTCCA	120
GATAGTCTTG CTCTCTATTT GTACCATTTGA TAGAACATAA GAGTAATTTG TTATTTCTCT	180
TATAGACTTC ATTTTCCACA TGCATAGCAA ATTCTGAAAA GAAGGGATGC CAGATACTTG	240
GTACAATGAT TGCAATCGTT TCTGTTGAT TTTTTTTCAT TCCTCTAGCG TAGTAATCTG	300
GAATGTAATT CAAAGTTTAA ATCGCTTGTT CCACCTTTTT CAAAGTTACT TCTTTAATGC	360
CTTTTCTTTT ATTAATTACA CGTGAACAG TTCCAACACT AACTCCTGCT TCTAAAGCAA	420
CATCTTTTCAT GGTAATTGAT TTTCTTTGTT CTACCATATT ATCACCTCCT TTCAATATAT	480
AGTATCATGC AAATGCTTTT TAAGCAACTA TTTCTCAATC ATTTTGGCC AGATCATTTA	540
TCCCATCATG AATAAAATCA CTCCAATTAG CTTTGTAAAA TACTTCAATT TTCATGTGTA	600
AACATCTACA TAAACAGGA AAAGCCTGG TTTCTGGCT TTTTCTGAT CTCTATAAA	660
AAAAGCAAGA GTTTTAGATG GCTATAAATC TAGATGTACA TTTTGCTTAA ATGATTGAAG	720
GTCTTTTCTT AACAAAAACA CCCCCAAAT TAGACTTTTT CTGTCTAACT TTTGAGGTAC	780
AGTTCAAACG CGAAATAGCG TTTTTTGTGTT ATTTTGGTT ACTCATCTAA TCGAATAAAC	840
ATCATGGCAT TTAACAAGTA TATGAGTGAG ACCGTGTTTA TATTATTGA ATAGATGAGT	900
CTCTTATTTT CAATAGGAGG AATAATAAAA TTAGAAATAA TGATATCATA AGGTGAATCT	960
TCTAAAGATT CCTTTGATAA TTCTAATCA GTCCAAACTT CCAGTTCAAA ATTATTGCTA	1020
CAATAATAAG AAAGTGTCTC TGCAACGAAT TTTGCATGAT ACTGATCAAA ATTACTCATA	1080
ACTAAACCT TTAGTTTAGG CTGATTTGT AGCAAATTA TCAACAAATG TTTGGTATGA	1140
GTGATGAAGG TATAAGATAG ATGATTTACC ATCATTGAAC TAGAACAAAC CTCAAGAGTC	1200
TCTAAATAGT GAGAAAGCTC TTTTTTTATA TCTGAAACAA ATTTTGGAAA AATATTTGA	1260
AAGTTCCTGA TTGATTTCCC TTTTGTATCA AATAAAATAA ACTCAGTAAA CAACTCTGA	1320
CGATACAGAT GTGCGGTATT ATGCAGATGC CAAATCAGAT TATCCTTATT CTCCATTTCA	1380
ATCTGATACT TGACTGAAAT CTGATCAATA AAATCACTCA ATAGATGGTA AGATTTTCA	1440
ACATAACTAT CCTTTTAC GCATTTTATA AAGAGACTTT CATCTATGAA AAACATTTT	1500
TGAAAGTAAG ACACAAATAA TTGGCAAACA ACTTCTTCAT CTAAAGAGAT ATTGTATTCT	1560
GATTCAAAAC TCTGAGCAAC ACCTTCTATT CCTTCTGCCT GCATTAAAA ATCCAAACTT	1620
TGTCGTAA AAGAATCTTT ATCTACTTCC ATAAAAATGAC CAACTTTAT TCTATATAGG	1680
TTCGTAACTA GGAGCAACTT TAGCATTTCTA TCGGTTGACA AATTCATTGG AAAGCTTGTT	1740
TCCTTATAAA CCAATTCTAA CAATTGAGAT AGTGGCTCTG ATGAAAAATT TTCAAATGGC	1800

1139

CATTCTAGGA AATAATATTT TTCTGAAAAA TATTGTGCAA AAAAGTAACG AATGTCTCTC	1860
TCATTTCCAA TGATTTGAAC AGGGGTCAGA CTAACCTCAA ATTGAAATG CCTTTTAATC	1920
ACTTTATTGA TTTGGCTAAT AATACGATAG AGCGAAGATG AACTGATATA AAATCTTTTA	1980
CAAATACTCT CAGCTTGACA ACCTTCATTA AAGAAGATGA ATTCTAAAAT CGAAAAATGA	2040
GTTGAATGTT TAAAGAAATG ATGGTAAACC ATTTCAATAT CACTATCATC GGTATTAATA	2100
ATGCGTATAC CATTAGTAGA AGAATGAAAA ATCAAGTCAG GAAAAGCAGA TTAAACATGG	2160
GATAGATCAT CTTTGACTGC ACGTTCTGTA CAATTTAATA ACTCTGCTAG TTCAGAACGA	2220
TGAAACCAAC GTTTATGTTT AAATAATAAT TCTAATAATT CTAATTGCCT ATGACTTTTT	2280
TTAGATAATA AATCTCTCAT GAATATCTTT CTCTCTTTAT AAATTATCGG ATTAACCTC	2340
TTGCAATTAT ACCACAAAGA ATAGGTATAG CATGATATAA CGACTTTTCC TAAATCTTT	2400
TATTTGCTAT AATAACACTA CGGAGACAAT ATATAAACAA TTTTCTTATT TTACCGTCTA	2460
TTGAGGGCGT GAATACAGAA TCAAATTCAA GTCTAAAGAT TATATTTTAA ATTTTAAAA	2520
TTATATAATA GCAACAATTA AAGAATTGA TTTTAAAA TTATATAATA ATAACAATCG	2580
AAATAATTGA CTTTCTATA TTAAAGTTAT ATAATAGTAA TAATCAAAGA AATTGATTTT	2640
TTGATATTAA AATAAAAAAG GAGGGTAGGC AGTGTGTGA TCAATTATTG CTGGAGGTCT	2700
TATTTGGTCTC TTGGCAGGTA AAATCACTAA AAAAGTAGTT CTATGGGAAT CATCGCAAAT	2760
GTATTCGCTG GTTTAGTCGG GGCATATGCA GGACAATCTC TTTTAGGTAG TTGGGGTCCA	2820
GCAATCGCTG GAATGGCTTT GCTCCCATCT ATTGTAGGTG CAGCGATTGT GATTACTGTA	2880
GTGTCATTCT TTACAGGTAG AAAGTAACT TTTGCCAGT AAAGTTAGCA AACTATTTTT	2940
AAATCAATGA CGGGAAAAAT AGTTTAAATG TTAATCGAA AGGATTGTAT ATGTCAAAG	3000
CAAGAAAAAT ATGTTTCATT ATTTTCTGTA TTTAATCTT GACAATTTTCTTCTCTTTT	3060
TGATAGATTA TCATCAAGTT AGTGATCTAG GTATTCATCT ACTTAGCTGG AGACAGAACT	3120
CCGTAGTTGA ATTCTATCTT GCTAGATATG TCTTTTGGG GACAGTGTT CTATCAACTT	3180
TAGTTTTATT ATCCATTTTA GTTGATGATG TTTATCCTAA ACGTTACTTG GAAATCCAAC	3240
TTGAACTAA AAACGATACA TTAATAATTA AGAATTCGGC AATCGAAGGT TTTGTTAGAA	3300
GTTTGGTGAG TGATCATAGA TTGATCAAGA ACCCAACTGT TCATGTAAAT TTACGAAAA	3360
ATAAATGTTT CGTTCATGTA GAAGGTAAAA TTCTTCTTC AGACAACATC GCTGACAGAT	3420
GCCAAATAAT TCAAAATGAA ATAATAATG GATTGAAGCA GTTTTTTGGT ATTGAGCGTC	3480
AAGTAAACT TGAAGTTGCA GTAAAAATT ACCAACCAA ACCTCAAAC AAAAGACTG	3540

1140

TTAGTCGTGT GAAGTAAGGA AGTAAAAAAT GGAATGGCTT AAACAATATC GATATCCAAT	3600
TATCGCTGGT CTCATAGGCG TATTTCTGGC TTGTTTGATT GTCTCCTTG GCTTCTTCAA	3660
AACAATATTT GTATTGATTT TAGGAGCACT GGGAGTTGCA GCTGGATTAT ATATCGAAAA	3720
AAACTATATA GATAAATAAA AAAATAAAAA TTAATAATTT AATTAAAGGA GTTTCATATG	3780
TCAAACGAAA AAAACACAAA CACTAACGTA GAAAGAAAG ATGCTACTGT TGTAAGCTCAC	3840
GAAATCAAAG GGGAACTTAC TTACGAAGAT AAAGTTATCC AAAAAATCAT TGGTCTTTCA	3900
CTAGAAAACG TTTCAGGTCT TTTGGGAATC GATGGTGGTT TCTTCTCAA TCTTAAAGAA	3960
AAAATCGTTA ACACGATGA CGTAACAAGT GGTGTTAACG TAGAAGTTGG TAAAACACAA	4020
GTTGCAGTTG ACTTAAACGT TATTGTTGAG TACCAAAAAA ATGTTCCAGC TTTATATTCA	4080
GAAATCAGAG AAATCGTATC TTCAGAAGTT GCTAAAATGA CTGACTTGA AATTGTTGAA	4140
ATCAACGTAA ACGTTGTCGA CATCAAACT AAAGAACAGC ATGAAGCAGA CTCAGTAAGC	4200
CTTCAAGATC GCGTATCTGA CGTTGCTGAA TCAACAGGAG AATTCAC TTC AGACAATTC	4260
GAAAAAGCTA AATCTGGTCT TGGATCTGGT TTCTCAACTG TTCAAGAAAA AGTTAGCGAA	4320
GGTGTAGAAG CTGTTAAAGG TGCAGCAAAT GGTGTAGTAT CTCACGAAAA CACTCGTGTA	4380
AACTAAGATA AAATAAATAT AACAGGAGAA ATTATCATGT CAGTAGAAGA AAAATTAAAT	4440
CAAGCTAAG GTTCTATTAA AGAAGGTGTT GGGAAAGCCA TCGGTGATGA AAAATGGAA	4500
AAAGAAGGTG CAGCTGAAAA AGTTGTTTCT AAAGTAAAAG AAGTTGCCGA AGACGCTAA	4560
GACGCTGTAG AAGGTGCTGT AGAAGGTGTT AAAAACATGT TGAGTGGCGA CGATAAATAA	4620
GGTTAAAAAGT TACTTTATCT TTTTAGTAAT ATTAGTCAA AGAGTCTGAG TCAAGATGAT	4680
TCTCAGAAAA CAAAAAGCTA GAGATTCCCA ATTGCGGAAC TCTAGCTTTT TAATTTTGCC	4740
TCTTTCTCTT ATTATATTTT AGCAGGTTGT TGGCCATGAG TACGAATCCC ATGTCAATTC	4800
TCACTTGACG CTTACCTCTC AGATGACATC TCTTATAACC CAAACAAACC TTTATCTGCC	4860
CAAAGACAGA TTTCATATCA ATCTTACGTT TAGCGAAAAAT TTGTCTACCC TTGGAAGATA	4920
AAAGTGCCTG ATATTCTTTA GTTTTAAAC ACTGGTAACG TTCATTGATA TACAGTCTCT	4980
TTTGAGGGGC TGATTCAGGT TCATAATCGC AGTCAACATT GATTTCAGG CTGTTTGCTT	5040
TCTATCTCCC CGG	5053

(2) INFORMATION FOR SEQ ID NO: 188:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6492 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1141

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 188:

AATTCTCTTT TTTCCAACAA AATGTATGAC CTGCACTTGA ATACTTCTCA TTGTTTGATAC	60
ATTCATCTAC TTTTCATATAA TCTTTTACAA AATCATAATA TGACATAACA CACTATCCCT	120
TTTAGACAAT ATTCCAATTA GCCTTATTAA TTCAAACTA TTGTATTAGT AATTATAACA	180
GATGTATAAT AGAAAAGCAA TGATAGATAT TATCAATTAA GCGAATTTAT ATCTAAAAGG	240
GATATTAAAG AAAGGAGATA TGCTTATGAA GATTTACAAA AAACATTTTG CTTATGTCCA	300
AGATAAGAAA TATCTTGGGG TTTTGGCCAT AATTTTTTCT GCTATATCTG CTGCACTTAC	360
AGTATATGGA TATTATTTAA TCTACAAAT TCTAGATAAG TTAATAATTA ATTCAACTT	420
ATCCGGTGCA GAGAGTATAG CATTAAAATC TGTTATTACA CTAACAAGTG GAGCGATATT	480
TTATTTTGTC TCAGGAATGT TTTACATAT CTTGGGATTC AGGCTTGAAA CAAATTTAAG	540
AAAAAGGGaa TCGATGGTCT GGAAAAAGCA AGTTTtaggt TCTTTGACTT AAATCCATCT	600
GGTCAAATAA GAAAGATTAT AGATGCAAT GCTGCACAAA CTCATCAGGT GGTAGCACAC	660
ATGATCCCCG ATAGTTCTCA GGCAATAATC ACACCCGTAC TTGTACTTGC ACTTGGCTTT	720
ATAGTAAGTA TAAGAGTTGG CATAATTTG CTTGCTCTTA CTATAATTGG TGGCTTAATT	780
TTAGGGGCAA TGATGGGCGA GCAAGAATTT ATGAAGATAT ACCAAGAATC CCTATCTAAA	840
CTAAGTGCTG AAACGTGTGA GTACGTGAGA GGAATGCAAG TTGTAAAAAT ATTTAAAGCA	900
AATGTAGAGT CTTTAAAAAG CTTTATAAG GCGATAAAAG ATTACTCAA GTATGCTTAT	960
GATTATCCC TATCTGTAA AAGGCCTTAT GTTTGTATC AATGGTTATT TTTTGGACTG	1020
ATTGCAATTT TAATTATTCC TATAGTTTAT TTTATGACTA GCTTAGCTAG CGCAAAGGTG	1080
ATTTTACTTG AGCTTATCAT GATTTTATTT TTATCAGGAG TTCTCTTGT TTCATTATG	1140
AGAATGATGT GtACTCCATG TATATTTCTC AAGGAAATTA TGCAGTAGAT ACTTTAGAGG	1200
CGCTTTACGA AGATATGCAA AAAGACAAAT TAGTGCATGG TAATGTCAAT AATTTTAAAA	1260
ACTATAATAT AGAATTTGAG AATGTTAGCT TTGCTTATAA TGATAAAGCT GTCATTGAAA	1320
ATTTATCCTT TAATTTAGAA GAAGGAAAGT CCTACGCACT TGTCGGTTCA TCTGGATCAG	1380
GCAAATCAAC AGTAGCAAAA CTTATATCAG GTTTTACAA TGTAATAAA GGAAGCATAA	1440
AGATAGGCGG GATAGCAATA AGTGAATATT CTGACGAAGC CTTAATTAAA GCCATTTCTT	1500
TTGTTTTTCA AGATTCAAAA TTATTCAAGA AGAGCATTTA TGATAATGTA GCGTTAGCTA	1560
ATAAAGATGC GACGAAAGAT GACGTTATGA GAGCCTTAAA ATTAGCAGGA TGCGATTTAA	1620

1142

TATTAGACAA ATTCCCAGAA AGAGAAAATA CAATCATAGG CTCAAAAGGT GTTTATTTAT	1680
CCGGTGGAGA AAAACAAAGA ATTGCAATTG CTAGAGCAAT TTTAAAGGAT TCCAAAATTA	1740
TTATTATGGA TGAAGCATCA GCATCTATTG ACCCAGATAA CGAGTTTGAA TTGCAAAAAG	1800
CTTTTAAAA TCTTATGAAG GATAAACAG TTATCATGAT TGCACACAGG CTATCTACAA	1860
TTAAAGACCT TGATGAAATT ATTGTCTGCG ATAGTGGAAA AATTATAGAA AGAGGGTCTG	1920
ACAAAGAATT AATGTCAAAA GATACAAGGT ATAAGAGCCT GCAAGAGATG TTTAACAGTG	1980
CGAATGAATG GAGGGTTTCA AATGAAAGAG TTTTATAAAA AAAGATTGCG TCTTACAGAT	2040
GGAGGAGCAA GAAATTTAAG TAAAGCAACA CTGGCTTCAT TTTTCGTTTA TTGTATAAAC	2100
ATGCTTCCTG CCAATTACT TATGATTTT GCTCAGGAAG TTTTGGAAA TATGGGCAAA	2160
AGCAATGGCT TTTATATAGT ATTCTCAGTT TTGATTTTGA TAGCAATGTA TATTTTGCTT	2220
TCTATCGAAT ACGATAAATT ATATAACACA ACCTATCAAG AAAGTGCAGA TTTAAGAATA	2280
AGGACAGCGG AGAATTTATC AAAATTACCT CTATCTTACT TTTCTAAACA TGACATTTCC	2340
GACATTTTAC AAACAATCAT GGCTGATATT GAAGGCATAG AGCATGCAAT GAGCCACTCA	2400
ATACCAAAGG TGGGCGGCAT GGCTACTGTTT TTCCCATTA TATCTGTAAT GATGCTAGCG	2460
GGCAATGTCA AGATGGGTTT AGCTGTAATT ATTCCATCTA TTTTAAGCTT TATATTATA	2520
CCTTTATCTA AAAAATATCA GGTTAATGGA CAGAATAGAT ATTATGATGT CTTAAGAAAA	2580
AACTCAGAAA GCTTTCAAGA AAATATCGAA ATGCAAATGG AGATTAAAGC ATATAATTTA	2640
TCGAAGGATA TTAAAGATGA CTTATATAAA AAAATGGAAG ATAGTGAGAA AGTACACTTA	2700
AAGGCGGAAG TAACTACAAT TTTAACTTTG TCTATATCTT CAATATTTAG CTTTATATCT	2760
CTTGCTGTTG TGATATTTGT CGGCGTAAAT CTAATTATTA ATAAAGAGAT AAATTCTCTC	2820
TACCTTATAG GATATTTACT AGCTGCTATG AAGATAACAG ACTCTTTAGA TGCATCTAAA	2880
GAGGGCTTGA TGGAAATATT TTATTTATCG CCCAAAATAG AAAGATTAAA AGAAATTCAA	2940
AATCAAGATT TACAAGAAGG CGATGACTAT AGCTTAAAAA AATTTGATAT TGATCTAAAA	3000
GATGTTGAGT TTGCCTACAA TAAAGACGCA AAAGTTTAA ATGGTGTAAG TTTTAAAGCT	3060
AAGCAGGGAG AGGTCAGTGC TTTGGTAGGT GCAAGTGGCT GCGGTAAAAC AACTATCTTG	3120
AACTTATAT CAAGACTTTA TGATTATGAC AAGGGACAAA TCTTAATCGA TGGCAAAGAT	3180
ATAAAGGAAA TATCAACAGA ATCCCTTTTT GATAAGGTGT CTATTGTTTT CCAAGATGTG	3240
GTCTCTTTA ATCAAAGCGT TATGGAAAAT ATTAGAATCG GTAAGCAAGA TGCAAGTGAC	3300
GAAGAGGTTA AAAGAGCAGC AAAACTTGCA AATTGCACAG ATTTTATAGA AAAAATGGAT	3360
AAAGGTTTCG ATACAGTTAT TGGTGAAAAC GGAGCTGAGC TATCAGGAGG AGAAAGACAA	3420

1143

AGATTATCAA TAGCCAGAGC CTTCTTAAAA GATGCGCCGA TATTGATCTT AGATGAGATA	3480
ACAGCAAGCC TTGATGTTAA CAACGAGAAA AAGATTCAAG AGTCTTTAAA TAATTTAGTT	3540
AAAGATAAAA CTGTGTAAAT CATTTACAT AGAATGAAAT CCATAGAAAA TGCAGACAAG	3600
ATAGTAGTTC TTCAAAACGG AAGAGTAGAA AGCGAAGGTA AGCATGAAGA GCTTTTACAA	3660
AAATCAAAAA TTTACAAAA TTTAATAGAA AAGACAAAA TGGCAGAAGA ATTTATTTAT	3720
TAGGAGGACT ACAATGGATA ATAAAAATT AAAAGTAAAA GATTTAGTAA GCATCGGTGT	3780
TTTTGGCGTA ATTTATTTTG CCTTCATGTT TGGAGTTGGT ATGATGGGCT TGATTCCAAT	3840
ATTGTTCTTA ATATACCCGA CAGTATTAGC CATAGTTGCA GGAAGTGTG TTATGTTATT	3900
TATGGCTAAG GTTCAAAAGC CATGGGCACT ATTTATATTT GGTATGATAT CACCACTTGT	3960
GATGTTTGA GCTGGTCATA CCTACGTAGT TGTGGTTTGA TCACTTATAG TAATGATAAT	4020
AGCAGAATTA ATTAGAAAGA TTGGTAATTA TAATTCATTT AAATACAATA TGCTTTCTTA	4080
TGCAATCTTC AGCACATgGA TATGTAGCTC TTTAATGCAA ATGCTTTTAG CAAAAGAAAA	4140
ATATATGGAG TGGTCTTGA TGAATATGGG AAAAGATTAT GTTGATGTAT TAGAAAAGTT	4200
AATAACTTAT CCTCACATGG CTTTAGTAGC CTTAGGTGCT TTCTTAGGAG GAATTCCTGG	4260
AGCATATATA GGCAAGGCTC TATTGAAAA ACACTTTCA AATGGATTAT ATTGTTGGG	4320
ATACTTTACT CCTTGCCTAA TTTTATGGTG CTATCTGAAT TAAACCCTAT AGTTAAGATG	4380
TTTTTGAGTA TACCTATTGT TATTAGAATG TTTATTTTAC CATTTATGGC AGCAAGCTTT	4440
ATGATAAAGA CCTCGGATGT AGGCGCAATA ATTCATCGA TGGATAAGCT TAAGATTTC	4500
AAGAATGTAT CCATACCTAT TGCAGTTATG TTTAGATTCT TCCCATCTTT TAAGGAGGAG	4560
AAGAAAAACA TCAAAATGGC TATGAGAGTA AGAGGGATAA ATTTTAAAA CCCAGTCAAA	4620
TATCTTGAAT ATGTTTCTGT GCCACTACTC ATTATATCAT CTAATATATC AGATGACATT	4680
GCAAAAGCGG CAGAAACAAA GGCAATAGAA AATCCAATTG CCAAGACCAG ATACATTGCG	4740
GTAAGATAC AGCTAATTGA TTTTGTATTAT GTTTTAGCGG TTGCTGGACT TATTGTGGGA	4800
GGCTTAATAT GGTGAAATA AAAAATTAA GTCTTGATTA TGGTGAAGAG CATATATTAG	4860
ATGATATATC ACTATCCATA GCCGAGGAG AGTGCCTGCT ATTTACAGGA AAAAGTGGAA	4920
ATGGTAAGTC ATCTTTAATA AATCAATCA ATGGACTAGC TGTAAGGTAT GATAACGCAA	4980
AGACAAAGGG CGAAATAATT ATTGATGGTA AGAATATAAA AAATTTGGAA CTTTATCAAA	5040
TCTCAATGCT TGTTTCAACT GTTTTCAAA ATCCTAAGAC ATATTTTTTT AATGTCAATA	5100
CGACATTAGA ATTATTATTT TATTTGGAAA ATATCGGTCT TGCAAGAGAA GAGATGGACA	5160

1144

GGCGTTTGAA GGATATACTT GAGATATTCC CGATAAAAAA TCTTTTGAAC AGAAATATAT	5220
TTAATCTATC CGGCGGTGAA AAACAAATTC TTTGCATTGC AGCTTCTTAT ATAGCAGGTA	5280
CAAAGATTAT AGTTATGGAT GAGCCTTCAT CGAATTTAGA TATTAAGAAGC ATAAGTGTTT	5340
TGGCAAAGAT GCTAAAGATA TTAAGAGAGA AAGGCATAAG CATAATTGTT GCAGAGCATA	5400
GAATTTATTA TTTGATGGAC ATAGTTGACC GTGTATTTT AATAGATAAA GGAAAGCTTA	5460
AAAAACCTTA TACTAGAAGT GAATTTTAA AGCTAGATAA AAATGAATTA AATGCTTTAA	5520
GTTTAAGAGA TAAAGAATTA AGTAAATTA AAGTTCCTTA TTTAAAAGAA GGTGGAGAGT	5580
ATCAGATAAA AAATCTTAGT TACAAATTA CTGATGATGA GTGTTTAAGC TTAAGAGATA	5640
TTTCGTTCAA GCTTGGGAAA ATTTATGGCA TAATAGGATC CAACGGACGA GGAAATCAA	5700
CGCTTTTAAG ATGTTTAATA GGTCTTGAGA AAAAATCAA AGAAGAAATT TATTTTAAGG	5760
GAGAGAAGCT ATCTAAAAA GAAAGACTCA AAAACTCTTC ACTTGTTATG CAAGATGTAA	5820
ATCATCAATT ATTCACAGAT GAAGTATCA ACGAGCTTAG ATTAGGAGTA AAGAATTTTG	5880
ATGAAGAAA GGCAGAAATC ATTTAAACC CCAATTATTC ACCCAAATC TAAAAACCAT	5940
CCAGAATCCT TGCCTTAGCT TAGATCCTGG ATGGTTTCTT TTTTCACCCA ATGGGTGTTT	6000
TTTACTAGAC AAAAAGAGT TTCCCTTTA TGGTATAAGT GTAGAAAAA ACACAAAAAG	6060
AAAGGAAACT CACATGAACA GTTTACCAA TCATCACTTC CAAAACAAGT CTTTTTACCA	6120
ACTATCTTTC GATGGAGGTC ATTTAACCCA GTATGGTGGT CTTATCTTTT TTCAGGAACT	6180
TTTTTCCAG TTGAACTAA AAGAGCGGAT TTCTAAGTAT TTAGTAACGA ATGACCAACG	6240
CCGCTACTGT CGTTATTCGG ATTCAGATAT CTTGTCCAG TTCCTCTTTC AACTGTTAAC	6300
AGGTTATGGA ACGGACTATG CTTGTAAAGA ATTGTCAGCT GATGCCTACT TTCCAAAATT	6360
GTTGGAAGGA GGCAGCTTG TTCACAGCCA ACCTTATCCC GTTTCTTTTC CAGAACTGAC	6420
GAGGAAACAG TCCATAGTTT GCGATGCCTC AACCTTGAAT TGGTCGAATT CTTTTTACAT	6480
GTTCACCAGC TG	6492

(2) INFORMATION FOR SEQ ID NO: 189:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7174 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 189:

AACTGAAGGT AAAGGCTTCG ACGCAGAACG TGACGCTGCC CAAGCTGCCC TTGATGACCT

60

1145

TAAGAAAGCT CAAGAAGACA ACAACTTGGA CGACATGAAA ACAAACTTG AAGCATTGAA	120
CGAAAAAGCT CAAGGACTTG CTGTTAAACT CTACGAACAA GCCGCAGCAG CGCAACAAGC	180
TCAAGAAGGA GCAGAAGGCG CACAAGCAAC AGGGAACGCA GCGCATGACG TCGTAGACGG	240
AGAGTTTACG GAAAAGTAAG ATGAGTGTAT TGGATGAAGA GTATCTAAAA AATACACGAA	300
AAGTTTATAA TGATTTTGT AATCAAGCTG ATAACATAG AACATCAAAA GATTTTATTG	360
ATAATATTCC AATAGAATAT TTAGCTAGAT ATAGAGAATT ATATTAGCTG AACATGATAG	420
TTGTATCAAA AATGATGAAG CGGTAAGGAA TTTTGTACC TCAGTATTGT TGTCTGCATT	480
TGTATCGGCG ATGGTACCAG CTATGATATC ATTAGAAATA CAAACATATA AATTTGTAAT	540
ACCGTTCATA ATTGGTATGA TTTGGACAGT AGTTGTATTT CTTATGATCA ATTGGAATTA	600
TATAGGCAAA TACTAAGAAG AGACAAAAAT ATATAAATAT TTCTGTACTT ATAGGATATT	660
TAAATCAAA ATAAAGTTAA TTTACTTATT TGCAGAGGTT GCAACCCAGC CTCTGTTTTT	720
CGATAAAAG GGACGGAATC TCATTTGTTT GGGTTTGTG TCATCAATAG AAAGGAACAA	780
AGAGTGTCG TAACTGAACA CGGGTTTCAG AATTTCTTAC TAAATATAAA AGAAAGGAAT	840
TGAACCCGAC CTAAATGGTG GTTCGATTCA GAACATCAAT AGAAAGGAAT AAGGGTGTTT	900
GTAACGTAAC ACGGGCTATG GACTGTGCCA AAAAGATAGT TTTTCTAGG ACGTAAGCGT	960
CCGTCGTCAG AACTCCTAGA TGGCTGTGTC CGTTTGACGC CCTTGTATC TTGAATTATG	1020
AACAATACTG AATTTTATGA TCGTCTGGGG GTATCCAAAA ACGCTTCGGC AGACGAAATC	1080
AAAAAGGCTT ATCGTAAGCT TTCCAAAAA TATCACCAG ATATCAACAA GGAGCCTGGT	1140
GCTGAGGACA AGTACAAGGA AGTTCAAGAA GCCTATGAGA CTTTGAGTGA CGACCAAAAA	1200
CGTGCTGCCT ATGACCAGTA TGGTGCTGCA GCGGCCAATG GTGGTTTTGG TGGAGCTGGT	1260
GGTTTCGGCG GTTCAATGG GGCAGGTGGC TTCGGTGGTT TTGAGGATAT TTTCTCAAGT	1320
TTCTTCGGCG GAGGCGGTTT TTCGCGCAAT CCAAACGCTC CTCGCCAAGG AGATGATCTC	1380
CAGTATCGTG TCAATTTGAC CTTTGAAGAA GCTATCTTCG GAACTGAGAA GGAAGTTAAG	1440
TATCATCGTG AAGCTGGCTG TCGTACATGT AATGGATCTG GTGCTAAGCC AGGGACAAGT	1500
CCAGTCACTT GTGGACGCTG TCATGGCGCT GGTGTCATTA ACGTCGATAC GCAGACTCCT	1560
CTTGGTATGA TCGCTGCCA AGTAACCTGT GATGTCTGTC ACGGTCGAGG AAAAGAAATC	1620
AAATATCCAT GTACAACCTG TCATGGAACA GGTCATGAGA AACAAAGCTCA TAGCGTACAT	1680
GTGAAAATCC CTGCTGGTGT GGAAACAGGT CAACAAATTC GCCTCGCTGG TCAAGGTGAA	1740
GCAGGCTTTA ACGGTGGACC TTATGGTGAC TTGTATGTAG TAGTTTCTGT GGAAGCTAGC	1800

1146

GACAAGTTTG AACGTGAAGG AACGACTATC TTCTACAATC TCAACCTCAA CTTGTGCCAA	1860
GCGGCTCTTG GTGATACAGT AGATATTCCA ACTGTTACAG GTGATGTTGA ATTGGTTATT	1920
CCAGAGGGAA CTCAGACTGG TAAGAAGTTC CGCTACGTA GTAAGGGGC ACCGAGCCTT	1980
CGTGGCGGTG CAGTTGGTGA CCAATACGTT ACTGTTAATG TCGTAACACC GACAGGCTTG	2040
AACGACCGCC AAAAAGTAGC CTTGAAAGAA TTCGCGGCTG CTGGTGACTT GAAAGTAAAT	2100
CCAAAGAAAA AAGGCTTCTT TGACCATATT AAAGATGCCT TTGATGGAGA ATAATACTCT	2160
TCGAAAACT CTTCAAACCA CGTCAGCGTT GCCTTGCCGT ATATATGTGA CTGACTTCGT	2220
CAGTCGTATC TACAACCTCA AAACAGTGTT TTGAGCAGCC CGTGGCTAGT TTCCTAGTTT	2280
GCTTTTACT TTATAGATT TTTAAGACTT TCCTAAGTAA TGACGGACGG TAGTGACCTC	2340
CTTCGAAGTT CCATACCTAA ACTTTGAACC TAAGTTTAA AGTTTCCGA CAGCTGAAAC	2400
CAAGCTGTTT CAGGTGTTTT CATTACGGCA GAAAGTCTTC GATTAGTTG TGAATGGTG	2460
AATGATACTC TTCAAAAATT TCTCAAACC ACGTCAGCGT CGGCTTGTC TGGGTATGGT	2520
TACTGACTTC GTCAGTTCTA TCCACAACCT CAAAACAGTG TTTGAGCTGA CTTCGTCAGT	2580
TCTATCCACA ACCTTAAAC GGTGTTTTGA GCAGTCTGTG CCTAGCTTTC TAGTTTGCTT	2640
TTTGATTTTT ATTGAGTATG AATTACCTAA ATTATGATGC ATAGTTGATG GGATATATAT	2700
AATAGATTGA AATAGAATAT GAACAAATTG ATAAGAGGAT TTTAAAGTAA TCTCTAACAA	2760
TGCTTTAGAA ACTATGGTGT GCTATTCTAA ATTCAATTCA CTATAACTTG TTTACGTTTT	2820
AAAAAGAGC CGTCGGGCTC TTTTACTTA TCTTCAGTTC CCTGCATTC TTTATCACA	2880
GCTAGTCTAG TCTGGATATC CTTTCCAAG ACCTTAACT TGTAAGTCAA GTCTTCTGG	2940
TATTCCTTGA TAAGTTCTTT TTGCTGGTTA ATGATTTGCA GGCTGTTTG GATAATATCC	3000
ACATCGTCC TGTAGCTTG AACCGGTCA GTGGTATTCA AGACTTCATC TGTGATGGTT	3060
TGGCGATTTT TTGTAACCAG ATAACCTCCG GCTGCAGCTC CTGCAAATAG CAGTAGGTTG	3120
GATAATTICA TAGCAACTCC TTAAGCGTTT TTGATGTTT CAGCGACTTG AGCAAGTTTG	3180
TCAAAGTCTG GTTCGTGGC GATAAAATCA ATCTTGAGGT CATCGTCAGC ACTGTAGCGA	3240
GGCACAAGGT GAACGTGAGT ATGAAAACT GTTTGACCAG CGACTTCTTC ACAGTTGGAA	3300
ATGATATTCA TACCAGCAGC CTTAGTGACT TTCATGACTT TTTGAGCTAC TTTTGGTACT	3360
TGGGCAAAGA GTTGGCTGGC GTCGTAGCA TCCATCTCCA AAAGATTGCG ATAGTGTTCT	3420
TTTGGCAGCA CCAAGGTGTG TCCTAGTGTT ACTTGAGAGA TATCAAGAAA GGCAAGGACC	3480
TGCTCATCTT CATATACTTT TGAAGCAGGA ATTTCCCTG CGATGATTTT ACAAAAAATG	3540
CAATCTGACA TAAATCTAC CTCTACTGTA CTGAATTTTG ATATAATATA GCTACATTAT	3600

1147

ACCAGATTG GAGAAAATAT GTTAGAAATT AAAAACCTGA CAGGTGGCTA TGTTCATGTT	3660
CCTGTTTGA AAGATGTGTC CTTTACTGTT GAAAGTGGC AGTTGGTCGG TTTGATTGGT	3720
CTCAATGGTG CTGGGAAATC AACGACGATC AATGAGATTA TCGGTCTGTT GGCACCTTAT	3780
AGTGGCTCCA TCAATATCAA TGGCCTGACT CTGCAAGGAG ATGCGACTAG CTACCGCAAG	3840
CAGATTGGCT ACATTCCTGA GACGCCTAGT CTGTATGAGG AATTGACCCT CAGAGAGCAT	3900
ATCGAAACGG TTGCTATGGC TTACGGTATT GAGCAAAAAG TGGCTTTCGA ACGAGTAGAG	3960
CCCTTGTTAA AAATGTTCCG TTTGGAACAG AAATTAGACT GGTTCCTGT TCATTTTCA	4020
AAAGGGATGA AGCAGAAGGT CATGATTATC TGTGCTTTG TGGTGGATCC AAGTCTTTC	4080
ATCGTGGATG AGCCTTTCCT TGGTCTTGAT CCGCTGGCTA TTTCTGATTT GATTCAGCTT	4140
TTGGAAGTGG AGAAGCAAAA GGGCAAGTCT ATTCTCATGA GTACCCAGT GCTGGATTGG	4200
GCGGAGAAGA TGTGTGATGC CTTTGTCAAT CTTCAACAAG GAGAGGTGCG TTCCAAAGGC	4260
AATCTCCTGC AACTACGTGA AGCCTTTGAT ATGCCTGAGG CTAGTTTGAA TGATATTTAC	4320
TTGGCTCTGA CCAAGAGGA GGATCTATGA AAGACTTGTT TTTAAAGAGA AAGCAGGCTT	4380
TTCTGAAGGA GTGTCTGGT TATCTGCGCT ATGTGCTCAA TGACCACTTT GTCTTGTTC	4440
TGCTTGTCCT GTTGGGCTTT CTAGCCTACC AGTACAGTCA ACTCTTACAA CATTTTCCTG	4500
AAAATCATTG GCCTATCCTT TTGTTTGTAG GAATTACGTC TGTTTACTT TTACTTTGGG	4560
GAGGAACGTC CACCTATATG GAGGCTCCAG ACAAGCTCTT TCTCTTAGTT GGAGAAGAGG	4620
AAATTAAGCT CCATCTCAAG CGTCAAACTG GCATTTCCCT AGTCTTTGG CTCTTTGTAC	4680
AGACCCTTT CTGCTGTGA TTTGCGCCTT TATTTTAGC AATGGGTAT GGCTTGCCAG	4740
TTTTTCTGCT CTATGTGCTT TTATGGGGG TAGGAAAATA TTTCCACTTT TGTCAAAAGG	4800
CCAGCAAATT TTCACTGAA ACTGGACTGG ACTGGGACTA TGTTATTCT CAAGAAAGCA	4860
AGCGTAAGCA AGTCTTGCTT CGTTTCTTTG CCCTCTTTAC GCAGGTCAAG GGAATTTCAA	4920
ACAGCGTTAA GCGTCGTGCC TATCTGGACT TTATTTTAAA GGCTGTTTCA AAGGTGCCTG	4980
GGAAGATTG GCAAAATCTC TATCTGCGT CTTATCTGCG AAATGGCGAC CTCTTTGCTC	5040
TCAGTCTTCG TCTTCTCTG CTTTCTTGC TGGCGCAGGT TTTTATCGAG CAAGCTTGA	5100
TTGGCACAGC AGTGGTAGTT CTCTTTAACT ACCTCTTGCT CTTCCAGTTG CTGGCCCTCT	5160
ATCATGCCTT TGACTACCAG TATTTGACCC AACTCTTTCC GCTGGACAAG GGGCAAAAGG	5220
AAAAAGGCTT ACAGGAGGTA GTTCGAGGAT TGACCAGTTT TGTTTACTT GTGGAATTAG	5280
TTGTTGGGTT GATTACCTTC CAAGAAAAAC TAGCCCTTCT AGCCTTACTA GGAGCTGGTT	5340

1148

TGGTTTTACT AGTCTGTAT TTGCCTTATC AGGTAAAACG TCAGATGCAG GACTAACATT	5400
GCTGATACGA CACTAAAAAA GAAGTTGAGT TCAGTCTGTC TCAACTTCTT TTTTGTACT	5460
ACAGGATAAT GGTGGTCCG TAGAGACTTA TACTCTTCGA AAATCTCTTC AAACCAAGTC	5520
AGCGTCGTCT TACCGTACTC AAGTACAGCT TCGGGCTAGC TTCCTAGTTT GCTCTTTGAT	5580
TTTCATTGAG TATTAACCTG GTCTTGACTT GGTCAAAGTG GAAGCGGTCA TAGGCCCGCC	5640
AAGCGGCGCG AGTTGGAGCA TCTGGATCAA GAGCGCTGAG TCCCATGAGA AGACTGGAAG	5700
TCTGGTAAAA TTTTCTAGT TCAATCAAGA ATCGATTATC CACTGTTTCA GCCTTGGCTA	5760
GAAAACCAAG AATAGAGTTT AATTGCTCCT GAAAGCGGAC GTCGTCAGCG CTTGCCTGTT	5820
TGCATGCTTG GTAGGCTTTG TTTAAGTCAG TAATCAAAGT ATGAGCTCTT TTGATGGGGT	5880
CTGTATCTGT CATGGGAATG CCTCCTTTAA TCTGGGTGCC AGTCTTACTT CTGGCAACTG	5940
TGTTTTGATA CTGTTAGTTT ATCACTTTTA ATTCTTTTTT TTTATTCAAA TCTTTAATTG	6000
TCATTGAAAT GTCTTGAATT GCGCTGAGTG AATTTTATGA TAAATAGTT GTAAGCTCAT	6060
CATGATGTTG TAGAAAATAA TCCTTTTAGG AGTTTTCAAA GACTGTTTAG GATTGGGTGT	6120
GCTTGGGCTA GACCTTTTCT GTTATTCTTT TCTTAGGAGG AGAATCCAAT GAAATATATG	6180
ATTATTGAGA CGCAGAAAAC AGTCTATAAA GTAAACATCG ACGATATCTA CTATATCCAA	6240
ACACATCCAA CTAAAGCCCA TACCGTACAG ATTGTTACAG AAGAAGCTAG TTTTAATATG	6300
CTTCAAAATT TAAGTAATCT TGAGAACCAA TGTGGGGAAA CCTTGATGAG ATGTCATCGA	6360
AATGTGTTGG TTAATCTTGA TAAATTAAAA TCGATTGATT TTCAAGAAAG AATCCTTTTT	6420
CTCGGAGAAG AAGGTCAATA CGCTGTCAAG TATGCCAGAC GTCGCTATAG AGAAATTCGT	6480
CAAAAATGGT TGAAAGAGGG AGAGTAAGAA GATGAGAATA TTTGTTTLAG AGGATGATTT	6540
TTCCCAACAG ACTAGAATTG AAACGACGAT TGAGAAACTT TTGAAAGCAC ATCATATCAT	6600
TCCTAGCTCT TTTGAGGTAT TTGGCAAGCC GGACCAACTG CTGGCTGAAG TGCATGAGAA	6660
GGGGGCCCAT CAGCTATTCT TTTTGGATAT TGAGATTGCA AATGAAGAGA TGAAGGACT	6720
GGAAAGTGGCT AGAAAGATTG GGGATCGGGA TCCTTATGCC CTGATTGTCT TTGTGACGAC	6780
TCACTCGGAG TTTATGCCCC TGTCTTTTCG CTACCAAGTG TCTGCTTTGG ACTACATTGA	6840
TAAGGCCTTG TCAGCAGAGG AGTTTGAATC TCGGATCGAG ACAGCCCTCC TCTATGCCAA	6900
TAGTCAAGAT AGTAAAAGTC TGGCGGAAGA TTGCTTTTAC TTAAATCAA AATTGCCCCA	6960
ATTTCAAGTAT CCTTTTAAAG AGGTTTACTA TCTCGAAACG TCGCCAGAG CCCATCGTGT	7020
TATTCTCTAT ACCAAGACAG ACAGGCTGGA ATTTACAGCG AGTTTAGAGG AGGTTTCAA	7080
GCAGGAGCCC CGTCTCTGTC AGTGCCACCG CTCTTTTCTC ATCAATCCTG CAAATGTGGT	7140

1149

GCATTGGAT AAGAAAGAAA AACTGCTTTT CTTT

7174

(2) INFORMATION FOR SEQ ID NO: 190:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3207 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 190:

CCACCAGGGA AAATCATTGA AGTTGGTAGT CACCAAGAGT TAATGCAGGC GCAAAGTTTC	60
TACCATCATC TATTCAATAA ATAAGGAGAA TGTCATGAAT CCTAATCTTT TTAGAAGCGT	120
CGAGTTTAT CAGAGACGTT ACCATACTA TGCAGACGTG TTAATTATAC CTCTTTCATT	180
ACTATTTACT TTCATCTTGA TTTTCTCCCT TGTGCCACA AAAGAAATTA CTGTTACTTC	240
CCAAGGAGAA ATCGCCCTA CAGTGTCATT GCCTCCATTC AGTCAACCAG TGATAATCCT	300
ATCCTAGCTA ATCATTTAGT GGCAAATCAA GTAGTTGAAA AAGGGGACTT ACTCATCAA	360
TACTCTGAAA CAATGGAAGA AAGTCAGAAA ACTGCCTTAG CAACTCAATT ACAAAGACTT	420
GAGAAGCAAA AAGAAGGACT TGGAATTTTG AAACAAAGCT TAGAAAAAGC GACTGATCTT	480
TTTTCTGGCG AGGATGAATT TGGCTACCAT AATACCTTTA TGAATTTTAC TAAACAATCC	540
CATGATATTG AACTGGGTAT CACAAAGACT AACACCGAAG TTTCAAATCA AGCTAATCTT	600
TCCAATAGCA GTTCATCAGC TATTGAACAA GAAATTACAA AAGTTCAACA ACAAATTGGA	660
GAATATCAAG AGTTGAGAGA TGCTATCATA AATAACAGAG CACGCTTACC AACTGGCAAT	720
CCGCACCACT CAATTTTGAA TCGTTATCTT GTAGCCTCAC AAGGACAAAC ACAAGGAACT	780
GCAGAGGAGC CATTTTTATC TCAAATTAAT CAAAGTATTG CAGGTCTTGA ATCATCTATC	840
GCAAGCCTCA AAATTCAGCA AGCTGGTATC GGAAGTGTAG CAACTTATGA TAACAGTTTA	900
GCAACCAAAA TTGAAGTACT CCGCACTCAG TTTTACAGA CAGCCTCACA GCAACAACCTA	960
ACTGTGGAGA ATCAATTAAC AGAATTAAAA GTACAACTAG ATCAAGCCAC ACAGCGTTTG	1020
GAAAACAATA CCTTAACCTC CCCAAGTAAA GGTATCGTTC ATCTGAACAG CGAATTTGAA	1080
GGTAAAAATA GAATCCAAC TGGTACAGAA ATTGCTCAAA TATTCCTGTG CATCACAGAT	1140
ACAAGAGAAG TACTAATCAC TTACTACGTA TCTTCTGACT ATCTACCTCT ACTAGATAAA	1200
GGACAAACTG TAAGATTAAA ACTGGAGAAG ATTGGAAATC ACGGCACCAC CATCATCGGC	1260
CAACTTCAGA CAATTGATCA AACTCCTACC AGAACAGAGC AAGGAAATCT CTTTAAATTA	1320

1150

ACCGCTCTTG CAAAACTATC TAACGAGGAT AGTAAACTCA TCCAATATGG CTTACAAGGT	1380
CGCGTCACTA GTGTAACAC AAAGAAAACA TATTTTGATT ATTTCAAAGA TAAATTTTTA	1440
ACACATTCTG ATTAATTTTC AGATAACACT CTATAACTAT TTATTATCTT ATCAAAAAGG	1500
AGAATCATAA CATGGATAAG AAACAAAACC TAACTTCATT TCAAGAACTA ACAACTACCG	1560
AACTCAATCA AATTACAGGT GGAGGATTGT GGGAAGATTT ATTATATAAC ATTAATAGAT	1620
ATGCTCATTA CATCACATAA GAACTTCATC ATCCAATACA ACTATAAAAA AATAAGACCG	1680
AGAAACAAGT ACTCTCGGTC TTATTTTTC TCACTCTGTA TGTATCACAG TAAGTACCTG	1740
ACGAAAGACT TGATTTTGAC AGGTGGTATT TAGACTGGTA TTAGGATGGC TTTCCACAAT	1800
CTTCATGACG GTATAGAGAC CAACTCCTCT CTCCTCCCCT TTAGAAGTGG CTCCAAAGGA	1860
GAAGATTTCA GAAATATCGA TGCCCTCTTC TTGTATGGAG TTTTCGATGA TAAAGGTCTC	1920
CTGTGCTCCA TTTTPTAAAA AGGCGATTGA AACATGAGGT TGACTAGCTT CCACACTGGC	1980
TTCAATAGCA TTGTCACAAA GGATAGACAC AATGGTTAGA AAATCAAGTA GACTCATCCC	2040
CTCGACCTGA ATCTCCTCAG GAACTTCGAC ATTAAAGACA ATGTTCTTAT CTCTGGCTTT	2100
TAAAAATTC CCGCTAGAA GACTTTTGAG GGCTTTATCA CGAATATTTA CCAATCTGCC	2160
CAGGTCATAT TTATTGTTCT GCAATTTCTG ACTGGAATCC TTTAAGACGG AGCCATAGAC	2220
CTCTTTTATC TGCTCCATAT CCTCCTCTTC AATGCCCAGA CGTAAGCTAG TCAAGAGGTT	2280
GGTATAATCA TGACGAAAGC TCCGTACTTC CTGTGTAAGC TCCTCTATAT GCCGACTATA	2340
GCGTTCCATA TCTCTATAGC GCAGGGCCTG CTCTTGTTCC AATCTCTCAT AGAGTTTTTC	2400
CTTCAAATAG GTATCCAATT TCTTGATAAC CCCATAAAA AAGAGTAGGT AAAAGACTAG	2460
GATGAGATGG CGAACAGTCT TTGATTGAAT ACTTTGTTCA TATTCAAAA AAGACAGACT	2520
TTCCATGACT AGATAGTAGC CACCCATTAT CCAGTTAATC TGAGTCAGGG ACTTTTGAAA	2580
GGCTTTATCG AGAATCTCCT TTCTCAAGCT AGTAAATCG TAGTCCAACC ATTTCAAAAA	2640
AGCTAGAGAA ATGAAGAAAT TGAATTTAT TATACATAAC CCAGTAAATG AGTAGCCATC	2700
ATATACTTGC CCTTGTCCTA AAAATGGAAG CACAAAATAG GAGACTCCTC TATAAAGAG	2760
ATTCAACCAAT ATCATTGGAA AGAGACCATA AAAGAAAAGG AGTTTTTTAG GAAGCCTCT	2820
CAATAATAAG AAAGATAAGC CTATGCCGTA CAAGGTTCC ATAAATAAG ATAGGTAAAC	2880
ATTTCTTACT ATATAGCTAA TCATCACAAA AACAAAGGCC AACAGTATCT TCAAAAGAAA	2940
GGCCTTAAAA ATCTCTCGA AAGTAAGATC AATTCATCC ACCTTAAAGA AGATGACAAT	3000
TTCTAGTCCA TTAGTAACAA GTGTATACAA CAATATCCAA GCAATGTTCA TAAATTCTCC	3060
TAGCTCAGTG TAATTTATTG ATGGCCTCAG ACACTTCCT GACCTTATAA CGGGCGATTA	3120

1151

GACAACTTCC ACCATTGGGA GAGAAGAGCA GTTTTCTTT CTTATCCAAA TGCACCACAT 3180
TTGCAGGATT GATGAGAAAA GAGCGGT 3207

(2) INFORMATION FOR SEQ ID NO: 191:

- (i) SEQUENCE CHARACTERISTICS: .
(A) LENGTH: 10357 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 191:

CTGAATCAAG TGTACTGCAC CAGTTCGTGC ATCAGGCATA ACAACATCTA CAGATATAAT 60
ATTGTTTCT GAGTCCGCCT CATAAGTTAA AATCATAAAT TTTTCGATAT TCGAATTTTT 120
AGTAGCTTGT TCAATTTCTT GAATCATTTT ATCAGAAACT AACTCCATCT GAATTGGAAA 180
GGAATGACTA TTTTCATCAT TTTTGTAGGA AGAATGTTGA TTAAGATAAA GTGTATTCAT 240
CTGAGCATAT TCAAATAAGT AGCCACTCTT ATTTTCTTGT ACCAAAGGAA ATTGGTTTGT 300
AAGTCGCTTC TTACCCCTTA TAATTAACAA TACTTCCCA TATTTTCTG TATTGTTTC 360
AAATCTAAA TATCCCAAG TCTGTCCTGC TAATTGTAAT TTATACTCA ACAAATCTGC 420
TGATGCAAAAT GCAGTATCAA TATGATTAGG TCGCGTCCAT GCATAACCAT TCGACACTAT 480
CATGTCTCTT CTTTTTCTA GACGTTTCATC TACATAATCT TTTTGCCTT TCATCAAAGT 540
ATCTACAATT TTTTGTGCTT CAAGCGAATC AAAGAGATCC TGATTCAACA TAATCTTCC 600
TCCTCCAAAT ACTTTTAAAT GAATTATACC ATTTCTTAA AGAAATTACT ACAATAATTA 660
TCTTTTCTT AAAGTCTGT GTCAGAGTAA TTTAGAAAAT TATATCTTCT ATAGTAAAAT 720
CAATTAAAA CTGAACAAAT TTATTGGGAA ATTCAAATCG CTTTCTGAAA ATATTTTAGG 780
AACCGTAGTG TAATATTCCA GATTCAATTC ACTATAAAC TGACCTTCTT CCTGCAAAAG 840
AAAAAGGAAA GACTTCCTTT CGTGCCCTTC CTCCTACTTG CTACTTGTTT GATTATTTTT 900
GGTAAGCTAC TGCTTGTCTG ATAAATCCTT GAATCGGCTC TCCTTGGTGG AGAGCTTTTA 960
CTATTTTCGA ACCGACGATA ACACCATCTG ACACCGCATT GAAGCGTCC AGATCGGCTT 1020
GACTAGATAC ACCAAAACCT GTCAAGACTG GGATGTCGGC CACTTGATGA AGTTGCGCCA 1080
AGTGCTTGTC CAAATCTGCA CGGTAATGTC CTGATTCCC TGTCACCTCA TTGATGGCAA 1140
CGGCATAGAT GAATCCCTCC GCCCCTTCAA TCAACTCTT CTGGCGCTCA ATTCCTGTGG 1200
TCAAGCTTAC TAAAGGAATC AAGCGATAT CTGTATTGTC CAAAATGGT TCTACAAAGT 1260

1152

TGGCATGTTC ATGAGGCAGG TCTGGGATAA TCAAGCCCTT CACAGCTGTA TCAGCCAGAT	1320
CTTTGACAAA GTTCTCCACA CCGTACTGAA AGAGGGGGTT GAAGTAGGTC ATGATGACCA	1380
GTGGAATCTC TGTTCATG GTTTCAAGG TTTCAACTAA AGCCTGGGTA GAGGTCCCGT	1440
GGGCTAAACT GCGCAAGCCA GCTTCTCGA TAACAGGTCC ATCTGCAACA GGGTCTGAAA	1500
AGGGAATACC CACTTCAATT GCAGAGACAC CCAAATCTTC TAAAAAGTGA ATTGTTTCAG	1560
CAAGACCGTC CAAACCTTTC TCGTGGTCAC CAGCCATGAT ATAGGGAACA AAAATTCCTT	1620
TTCCAGCTGC TTTAATAGCA TTTAATTTT CTGTTAGTGT CTTAGGCATG AGCTTCTCCC	1680
TTCTTTGCTG CATCTGCTTC CAAGCGGTCC TTGACTTGAA CCACATCCTT GTCCCCACGA	1740
CCTGATAGGC AGACAATCAT AGACTTTTCT GGTCCAAGTT CTTTGGCCAA TTTCACCGCA	1800
AAGGCGATAG CATGGCTAGA TTCCAAGGCT GGGATAATCC CTTCCACACG AGACAAGAGT	1860
TGGAATCCTT CCAAGGCTTC TTCGTCTGTC ACAGGGACAT AGCTGGCAGC TTTAATATCG	1920
TGGTAGTGAG AATGCTCTGG ACCGATACCA GGATAGTCCA AACCTGCTGA GATAGAGAAG	1980
GCTTCAAGAA TTTGACCATG GGCATCTTGG AGCACATCCA TGAGGGAACC GTGAAGGACA	2040
CCTGGACGAC CCTTGGTCAA GGTAGCTGCG TGGTGTCTG TATCCACACC AAGCCCTGCT	2100
GCTTCAGTTC CATACATAGC TACTGACTCA TCTTCTACAA AGGGATGGAA GAGCCCCATA	2160
GCATTCGACC CACCACCAAC ACAGGCTACT AGGGCATCTG GCAGATCTCG ACCTGTCAAG	2220
TCACGGTACT GTTGTTTAGC CTCTCGACCG ATGACACTTT GGAAAGTCAG AACGATTTCT	2280
GGAAATGGAT GAGGCCCAA GGCAGAACCA AGGATATAGT GGGTATCGTC GATATTAGCC	2340
ACCCATGAAC GAAGGGCTGC ATTGACCGCA TCCTTGAGCA CGCGCGAACC ATCTGTTACA	2400
GCCTCGACCT TGGCTCCCAA AAGCTCCATG CGGAAGACAT TGAGGGCTTG GCGTTTGACA	2460
TCTTCCTCAC CCATGTAGAT GGTACATTCC ATGTTAAAGA GGGCTGCAGC AGTTGCAGTT	2520
GCCACACCGT GCTGACCAGC ACCCGTTTCT GCGATAATTT TCTTTTACC CATGCGTTTG	2580
GCAAGCCAAA CTTGTCTTAA GGCATTGTTA ATCTTGTTGG CTCCTGTATG GTTAAGGTCT	2640
TCCCGTTTGA GATAAATCTT GGCTCCGCCA ATATGCTGGG TCAAGTTTTT TGCCTAATAA	2700
AGAGGAGTTT CACGTCTAC GTACTGGCGC AAAAGCTGGT TTAATTCCTC TTGGAAACTT	2760
GGGTCTGCCT GACTTTCACG GTAGGCCTTC TCCAACCTCA AAACTGCTGT CATCAATGTT	2820
TCCTGGACAA AACGTCCGCC GAATTTTCCG TAAATCCAT CTTTATTTGG TTCCTGATAT	2880
GCCATGCTTT ACCCTCTCTA TAAATCTTCT AATCTTTTCA TGATCTTTT GTCCATCTGT	2940
CTCCACTCCG CTCGATACAT CTAATGCATA GGGAGTAAAG TGTGAATTG CTTTACTAC	3000
ATTATCTTCA TTAAGGCCAC CTGCGATAAA GAAGGGCTGT GCTAGTCCAG TCGTATCCAG	3060

1153

TTGACCCCAA TCAAAGGGCT GGCCACTTCC TGCCACAGGG GCATCAAAGA GTAGATAATC	3120
TGCCGTGAGAA TTGGGGACAT GCCCATTTCC ATCTACCTGC ACAGCCTGAA TACTGGCACA	3180
AGGCAAATTC TCAAATAAAT CATCTGCCAC CTGACCGTGA ACTTGAACCA AGTCCAAGCC	3240
AACTTTGTCA ATCGCTTCCA GCAGTTCTAC CCGACTTGGT GAAACAAATA CTCCAACCTT	3300
TTTCACATCT GCAGGAATAA GCTTTGCCAA CTCAGCTGCC TCTTCTAAAG TCACCTGTCT	3360
TTTACTAGGT GCAAAGACAA AACCGATATA GTCGGCTCCT GCTGAAACGG CTGTTTCCAC	3420
CGCTTCTTTG GTCGATAGTC CACAAATTTT AACCTTTGTC AATCTGCAAC TCCTTGATTC	3480
TCTGGGCCAC ATTTTCTGCC TGCATAAGAG CTGTCCCTAC CAAAATTCGG TTAAAGTATG	3540
GGGCTAGTCG TTCCGCATCC TGCCCTGTGA AAATGGCAGA TTCAGAAATG TAATAGCGAC	3600
CTTCCTCAAA GTAAGGGGCT AAATCTACAC TGGTCTGCAA GTCGACCTCA AAGGTAGTCA	3660
AGTTGCGGTT GTTGACCCCG ATAATCTCAG CACCAAGTCT GTGGGCTACC TCTAGTTCAG	3720
CTAGATTGTG AGTCTCCACT AAGACTTCCA GACCAAGCTC TGTCGCGTAG TCATACAGTT	3780
CCTTGAGCGC TTCTTCGGAC AAGGCTGCCA CAATGAGCAA GATAACTGTC GCACCTGCAT	3840
TGCGAGCGCG GATGATTTCG TTTTCATCGA TGATAAAGTC TTTGTTGAGC GTCGGAATCT	3900
CTACCTGACT GGAAATTTCC CGTAGATAAT CCAAATGCCC TTAAAGAAA ACCTCATCTG	3960
TCAACACCGA AATCATCACT GCTCCGTTTT CTTCATAAGT CTGGGCTGTG TGCACAATAT	4020
CCACATCGAG ATTGATATCT CCCAACTAG GGCTAGCTTT CTGACCTCA GCGATTACCT	4080
GCAAGCGGTC CTGATGATTC TTCAAAAATT CTGCCAAGCG ATAGGTCTGG CGCAGAGGCT	4140
GGATTGCTC CAGCTTCATC TGCTCCACCT CACGCGCCTT CTGCTCTAAG ATTCGTGCTA	4200
AAAATTCCTG ACTCATTTTT GGTACTCCTG TAACAGTCTG AGTTTTTCAA GGGCCTTGCC	4260
TCTAGCAATC ACTTGACGGG CCAAGGCAAC CCCTTCCTTG ATGCTATCAA TCTTACCATT	4320
AGCATAGAAA CCAAGACCAG CATTCAAGAC TGTCGTTTCC AAGAATGGAC TTGCTTCGTT	4380
TTTCAGAACG CTAAGCAAAA TTTCTGCATT TTCCTGAGCA TTCCCACCAC GAATATCTTC	4440
CATAGCATAG CCTTCCATTC CCAAATCCTC TGGAGTAAAG CTGACAAGC TGATTTGCGC	4500
ATTTTCAAGA AGTGCAATCT TGGTTGTTC GTTCAAGCCA GCTTCATCCA ACCCTTCTGG	4560
TCCAGCAACC ACGATGGCAC GTTTGCGACC CATATTTTTT AAAACCTGAG CTGTACTTTC	4620
TAGGAGTTCT GGACGACTAA TTCCAAGAAG CTGTGTTTCT AAAGCCATTG GATGAATCAG	4680
TGGACCAGTC AAGTTCATAA TCGTTGGAAT TCCCAATTC AAACGAGCTG GCATGATGTA	4740
TTTCATAGCT GGGTGCATAT TTTTAGCGAA GAGAAAGACG ATTCCAGTTT TATCAAAGAC	4800

1154

CTTACCTAGT TCAGCTGGTT TGAGGTCAAG ATTGATTCCC AAGGCTTCGA GGACATCTGC	4860
GGAACCAGAT TTAGAAGATA TCGAGCGGTT ACCGTGTTTG GCCATGTGAA TACCGCCACC	4920
AGCCAAGACA AAGGCTGCAG TTGTGGAAAT ATTAAACTG AAAGACTTGT CCCACCTGT	4980
ACCACAGTTG TCCATGGCAT CATGAATCTC AGTTGGAATA TGCTGGGCAT GTCCTCTCAT	5040
GACTTGGGCA ATGGCTGTGC GTTCTTCAGG TGTTCCTCCC TTCATCTTAA GAGCTAAGAG	5100
GAGAGAAGCA ATCTGCGCTT CAGTTACAG CCCAGTTACG ATACGCTCAA TGACATCCGT	5160
CATTTCCACA CCTGATAAAT TTTCAAATTT TGCTAGTTTT TCAATAATCT CTTTCATCCT	5220
AGTTTCCTCA CTTTACAACC TCCTCGATAA AATTCCGAAT AGAAGACAAG CCGTCTGGCG	5280
TTCCAATGCT CTCTGGATGG TACTGGAAGC CATAAATCGG TAGGTTTTTA TGTTGAATCC	5340
CCATGATGGC TTGGTCATCA GTCGAACGAG CTGTCACTTC AAAGTCTTCT GGCATTTCTT	5400
CAATCAAAAT ACTGTGATAA CGCATGACCG CACGGCCATC CTCAATACCT TGATACAAAA	5460
CAGATGGCGC TTCAAAGTTG ATATTGCTCT GTTCCCATG CATGACTTTT GGAGCCAAAC	5520
CTAGCTTACC ACCAAAGACT TCTGCAATGG CTTGGTGGCC CAAACAAATC CCAAGAATCG	5580
GCTTCTTGCC TGCAAAATCA CGAATCATGT CTTCCATCTT TCCAGCATCA ACTGGCCAAC	5640
CAGGACCAGG AGAAAAGACC AGACCATCTG CTTTTTCAGC TTCTTCATAC AGCTTGAAT	5700
CATCATTTCT CAGAACCTGA ACTTCTGCAA AATTCCTCAAT GTATTGGGCC AAGTTATAGG	5760
TAAAAGAATC ATAGTTGTCA ATCAATAAAA TCATGGTCTT AGTTCTCCAA TTCTAGTCAT	5820
AGATTTTGCT TTGTTAATGG TTTCTTGGA TTCGTTTGG GCGATAGAGT CGTAGACAA	5880
CCCTGCCCA GCCTGCACAT AGGCTCTTTG ATTTTGTAGA ATCATGGTTC GGATGGCGAT	5940
GGCCAAATCC ATATCACCCG TCGCAGACAA GTAGCCGATT GCCCCAGCGT ATACTCCCCG	6000
TTTTTCCGTT TCCAGTTCAT AGATACGTCT CATCGCTCGA ATCTTTGGTG CTCCAGAAAC	6060
GGTTCACGA GGAAGCGTTG CTTTCAAGGC ATCCATGGCA GTGAGTTCG GAAGCAAACG	6120
CCCCTTGACT ACGCTGGTCA AATGCATGAC GTAGCGGAAG AGCTCCACTT CCATATACTT	6180
AGTGACTTGG ACACTGGTCG TTTCAGAGAT GCGGCCAATA TCGTTACGCC CCAAGTCTAC	6240
CAACATTCTGA TGTTCGTCTG TTTCTTCTC ATCAGAGAGG AGGTCAGTCG CCAAGGCCTT	6300
GTCTTCTTCA TCCGTAGCCC CTCTTGGTCG CGTCCCTGCA ATCGGATTGG TTGTCACGAT	6360
GCCATTTTGG ACAGAAACCA AACTTTCCTG ACTAGCTCCG ATGATTGAT AATCCCCAAA	6420
ATCATAGAAA TAAAGGTAAT TAGAAGGATT AGTCACGCGG AGATTCTGT AGAAGTCAAA	6480
TGGATTTCGA GTAACCTCTG CTGAAAAACG CTGGCTGAGT ACACATTGGA ACATATCTCC	6540
GTTACGAATC AAGTCACGAG CTGTTTCTAC CATTCCCTCA AACTTATGTG GAGCGATATG	6600

1155

CGGTTTGAAG TCTAACGGAG ATAGATCCAA ATCTTCAAAT TCATTTGGAG CAGGAATGCG	6660
TAATTCCTCA AGCACTTGGT TCAAGGATTT TTCCAAGGCC TCTTGACTGC GCTCACTATA	6720
AAGTGCATCC TCTATGACAT GTATCTTCTC CTTCTTGTTG TCAAAGACCA TATAGCTCTC	6780
ATAGACAAAG AAATGCATGT CTGGCGTCCC AATTGTATCC TCAGGGATTT GACCAATTTT	6840
TTCATAAAGC GAAATCATAT CGTAACCCAC AAAACCAATG GCTCCACCAC CAAAAGGTAG	6900
CTCTGAGTGG TGCTGACTCT TATGAATCAC TTCATAAAGG AAATCCAAGG GATCCCGATC	6960
AATCACTTGA CCATTTTGAT AGAGAACCCC ATTTTCAAAC TTAATCTCAA AAACCTGGATT	7020
ATAGGCTAGG ATAGAAAAAC GAGCTGTTTC CTTGTCTCTC GGAATACTCT CTAAAATAAC	7080
CTTATGTTGC CCCTTTAAGC GCATATAAGC CAAGATTGGT GATAAGACAT CTCCATGAAT	7140
GATTCGTTC ATTGTAATTT CCCTTTCAGT TCTACTTCTA GTCCGTGGTG ACTGTATGAA	7200
AAATCCCCAC GCAAAATAAC TTGCGTGAGG ACGAAATTCG CGGTGCCACC TCAATTATAG	7260
GATTTCTCCT ATCTCTCATT CCTGTCTCAG ATATCTCCTG TAACAGGCTG TCGGATAAAG	7320
GGCACTCCCT TGAGAATGAT GTTTTCTTCT CTCGTTTCAG ATGAACCCAA CTTTACAGCT	7380
TTCTCTGCTT GTTTTCAGCA ACCACAAGCT CTCTGTGAGA GAAAGAAGTG TAATTTTTC	7440
ATCTATTATT TTTTAGCTTC TAGTAGTCTG CAATCGCAGC TAGGTCCTTG CCTCCACGAC	7500
CAGAGACATT GATGAAGAGA TGTTTCATCTC GGTACACCTT TATACTCTTC GAAAATCTCT	7560
TCAAACCGCG TCAACGTCGC CTTGCCGTAG GTATGGTTAC TGACTTCGTC AGTTCTATCT	7620
GCAACCTCAA AACAGTGTTC TGAGCTGACT TCGTCAGTTC TATCCACAAC CTCAAAACAG	7680
TGTTTTGAGC TGACTTCGTC AGTTCTATCC ACAACCTCAA AACAGTGTTC TGAGCTGACT	7740
TCGTCAGTTC TATCCACAAC CTCAAAACAG TGTTTTGAGC AGCCTGCGGC TAGTTTCCTA	7800
GTTCGCTCTT TGATTTTCAT TGAGTATTAC TAGCTTTTTT CGTATTAGTC CAGCCTTTTT	7860
GTTTGCTTTT AGTAGTAGGC ATGGAGCTGT AGATAGAACT CAAGTTCATC AAAGCGACTT	7920
AAGGCCCTAA TAAAAGATA ACCAAACGAC GGATAGAAAA AAGCCCACAC ACAGAATATA	7980
CTTCCGTGTG AGGGCGTTGG TAACGCGGTG CCACCTCAAT TATAAAGGGA CTATCCCTTT	8040
ACATCTCTGC CTTGTTTAAAC AACAAAGTGC ACTGTAAGGT GTGCGCACCG AATTTTCATT	8100
GTTTCAAATT CATTTTCAAA ATCAGCCAC TTTCACTACT TCCAACCACC TATTCACAAT	8160
CACCACAGGC TCCCTGAAGA TCAAAAATAG TTACTTTTCT GATTTGTTGA ACTTATTTTA	8220
ATACTTTGTT TTTTCTTTGT CAAGACTTTT TTACGATTTT TTTGAAAATA TCATTGGAAT	8280
ATGACCATGT CTTCTTAGA TCGAACATGA ACATGTCCCA CTTCTTAGAA ATTGGATCCA	8340

1156

ACTCAATAGA AACTGAATGG AGGCTAAACA GAACTTATTT TAGAACAATC CATCTTTTCC	8400
ACTAGGATTT TCAAGAATTA AACAATACTA GAACTCTGT CTCCTAACAA ATTTAGGAGA	8460
AACTTCAACA GATGTGACAC TTTCCCTTTT AATAATTGCT AAAACACCTT CTATCATTTT	8520
TTTAGCCAAT TTAACATAAT TGGGAGCAAT TGTAGACAAA GCTGGAGTAT AATACTGAGA	8580
AATAGGAATA TTATCAAATC CAATGATAGA AATATCATCT GGAATAAGAA TTCCTTTCTC	8640
ATAGCACGCA CGAATCAAGC CCTGAACCTT TTCATCTCCT GAAACAAAAA TAATGTCCGG	8700
ATAATTTTGG GTAGTCAAGT GCTGCATTGC ATAAGAATAA ACTGAATCAA TTGTAGATAA	8760
GCCATAAATG ACTTTTAAAT CCATAAAGTA ATTTTATCA TTCAGAAAAG AACGCACACC	8820
TCTTTCACGA TCCTTATTAA CATGGGATTC TCCTCCATA AGCAACCACA TATTTTAA	8880
TTTTCCTTCA GTTACAGCTT TCATCATATC ATAAGTAGCT TGAAAATTAT TATTAGATAC	8940
ATAGACTACT CCAGACGTTT GAGATTCACC GAAAACAAGA AAAGGCATAT GGTTCCTCTT	9000
TAAATACTGA ATTCTGATAT CATCTACACT TTCATAAAAA ACAATAACAC CATCTACTAG	9060
GCTACCTGTG CTTGATATAA TTGAATTACT AATTGTATCC TCCTCTCCA AGTACTCAAC	9120
TATAGCATTA ACACCAAATT CTTTACACGT CCGTAACACT TTATCTAACA GCGTATGAAA	9180
CCAAATTAAG GGAAGAGAGT CGATTTTTTT TACAGAAATC AATATATTTA TAGCTTCTTT	9240
TTTAGTTAAA TTTTTCAT ACGCATTTGG AATATACGAC AATTCCTCTA TAACTTTTGG	9300
AATCGCTTGA TAAGTTTCTT CTTTAACTT TACTCCACCA TTAATAACTC GTGAAACTGT	9360
TTTTGGAGAA AAACCTGATA AACGTGCAAT ATCATAAATA GTTACCTTTT TCCCATTAT	9420
ATTTTTCATT TCAGTCTCC ATTACGAACA TTCTAATATT ACTATACAAT ATTTAATTTT	9480
TTTTAACAAG AGAATTTAGT AAATTTATTA AGATCCACAA ATTCACAAAA TTAATTTTAC	9540
AAATATTCTT CCCCTTCAAA AAAGTTTAAA TTGCATTTCA CACCTTTATT TTTAAGAATG	9600
TTTCCAACCT CACGACAAAT AAATTCATAT GAGAAAAAAC TGCCATAAAA TTGTAGATTA	9660
ACTTTTTCAG TAAAATGTGT AGGATTTATA AAAACATATA ATAGCCTGTC AATGTAACAT	9720
TTTAACATAG AGTTAATTTT TTCTTTAAAG ATAACATTTG TTATCAACTC ATCAGGAGGT	9780
AAATGAAAGG CAAACACCAT TTCACAAATA TCATAAAAAG AAATAAATTT GTATACTTGT	9840
ATCAAACAAT TATTATCAAA ATATTCTATT TTACCTAAAT CAAAATTGAT TTTATAATCT	9900
TTCATAAAAA CCTCTGAGCA AAAATCTACT CAAAATTAG ATGATTAAAA CATCTAAAAA	9960
GCAAAAGGAC AAAACATCT GTCCCTTTGT TTAATAAATT TCAGCTAATT TCTTCGACAT	10020
AAATAACACC TACAATATTA GCAATTTCTT CCATCAGTCG AAGATGTTCA AATCTACCTG	10080
ATAATTCAG AGTAATAAAT GACGCTATTT TTTGTCCGG AACATCAAAG TATTCAATTC	10140

1157

TGTCAGAATT AACATCTCCA AACGCTGTTT TTGAATCGGT CATTCTGATA CCATTTTCTG	10200
CACAATAAAC CAATACACGA TTATAGGCTT CTGTAGATTT AACCACTATA TACAATTCAA	10260
TCATTTTAGA ACGATTTTGC AGATATTTT TTAGTGGTTG GAACATGGAT ATCACACCCC	10320
AAACAGAAAT GGCTACTAAA AGAGCTCCCT CATAAGG	10357

(2) INFORMATION FOR SEQ ID NO: 192:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6867 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 192:

CGGGACATTC TCAATCTTCT GTCTTTTGTT TTTCTCTTCT TTCTATGATA CAATGGAAAA	60
AATAAATTCA AAAGGAGTTT TTTTATGACT TATCCAAATC TCTTGGACCG CTTCTTAACC	120
TATGTTAAGG TCAACACGCG CTCTGATGAA CACTCTACTA CTAATCCAAG TACACAGAGT	180
CAGGTTGACT TCGCAACAAA TGTCTAATT CCTGAAATGA AACGTGTTGG ACTGCAAAAT	240
GTTTACTATC TACCGAATGG TTTTGCTATT GGAACCTTGC CAGCCAACGA TCCGTCTTTA	300
ACACGTAAGA TGGTTTTAT ATCGCACATG GATACTGCTG ATTTTAATGC TGAAGGAGTC	360
AATCCACAGG TAATTGAAAA CTACGATGGT GGTGTGATTG AACTAGGGAA TTCTGGTTTC	420
AAACTCGATC CAGCTGACTT CAAGAGTCTT GAAAAATATC CAGGACAAAC GCTCATCACA	480
ACAGATGGAA CAACCTTGCT AGGTGCTGAT GACAAGTCAG GAATTGCTGA AATTATGACA	540
GCCATTGAAT ATCTAACTGC TCATCCTGAA ATTAAGCACT GTGAGATTCTG TGTGGTTT	600
GGTCCAGATG AAGAAATCGG TGTGGTGCC AATAAATTG ATGCAGAAGA TTTTGATGTG	660
GATTTTGCTT ACCTGTTGA TGGTGGTCCA CTAGGTGAAC TTCAGTACGA GACTTTCTCA	720
GCCGCTGGTG CTGAATTGCA TTTCCAAGGT CGTAATGTCC ACCCTGGTAC TGCCAAAGGG	780
CAGATGGTCA ATGCCCTTCA GCTAGCAATT GATTTTCATA ATCAACTTCC AGAAAATGAC	840
CGACCTGAGT TAACTGAAGG TTACCAAGGT TTTTACCATC TAATGGATGT GACAGGTAGT	900
GTTGAGGAGG CGCGTGCAAG CTACATCATT CGTGATTTTG AAAAAGATGC CTTTGAAGCG	960
CGTAAAGCAT CCATGCAATC TATCGCTGAT AAGATGAATG AAGAACTTGG GAGCGACCGT	1020
GTCACTCTCA ACTTGACAGA CCAGTACTAC AATATGAAAG AAGTCATTGA AAAAGATATG	1080
ACTCCAATTA CCATTGCTAA AGCCGTTATG GAAGATCTAG GTATCACGCC TATTATCGAA	1140

1158

CCAATCCGGG GTGGAACAGA CGGCTCTAAG ATTTCTTTTA TGGGAATCCC AACTCCGAAT	1200
ATCTTTGCAG GTGGCGAAAA TATGCACGGA CGTTTTGAAT ACGTTAGCCT TCAGACTATG	1260
GAACGTGCAG TTGATACCAT CATTGGCATC GTAGCTTATA AAGGCTAAAA AGACGAGGTA	1320
GCTCAGCTAC TTCGCCTTTC TTTTATTCT ACTGGTTTTT CTGATTTCC AGTAGTTGTA	1380
GAAGATTCTG TTGTTTCATT TTCTGAAGTT GATTGAGCAG GTTTAGAATC TCTTGATTG	1440
CTTGGTTTGT TTTCTGCGCT AGCAGTTTCA ATGTTAGATT CTGCAGTTGC GTTTGGTTGG	1500
TTCTCAGCAC TGGTGTTATC ACCATTGCT TCAGCATTTT TGCTGGACT TGTTCCTTCA	1560
CTTGGCGTAG CTTTGGACTG GATTGATGA TTCAAACTA GAATAGCTTT TGTCGATTCA	1620
AGTAAAGCTG TTTTGTCTTT ACTCTTAGCA GAAAGTTGAT CTAATAATGC ATCCACCTTA	1680
TCAAAGTCCG CATCAGATCC ATTATTACTT TCTAAATAAG AGTGAAGCGA CATGAGAATA	1740
TCGTAGAGTT TTTGATAGAG TACAAGTGC TGAGGATCTT GCTCAGCATT TTCCTTTTCT	1800
TGTTGAAGGG CGCTAGCGAT ACGAGTCAAG ACATCTTTTA CCTGACTGTT TACTTCATCC	1860
AAGTCTGCAT CAGCCTTGTT TGTGGCAGCT TTTAGATTTT CTACTTCTTC TGCCAAGGAT	1920
TGTCGTATFC CTTCTTCATG GATTGTGTTCC AAGAGTTGAT TTGCCTTGCT CAAAAGACTT	1980
TCTACTTCTT CCTTGCTATC TGTCGCAGAT TATTGGTTGC TATCTACCAT GTACTCCTAA	2040
AACAGGAGAG TTATAATCCA AGATTACAAG GCCTTACAGA AATAAGAAAT CCAGATAAGA	2100
CAATGTTTCG CCAAGACGCT ATTCGCTTCG CACAGCAGCA CGGATTCAAT ATGCTTTAAT	2160
TTTAAAGTTT AGGTGTCAAG ACCTCTTTT AGTGTGCCCA AAATTTAGAG AAGTAATCAA	2220
TCAACTAACT TTTATTTTTT TCAAACCTTC AGTAACTGA CCTAAAGCTA ACTCAATCTG	2280
TCTTTGTAGA TGCTTCTGCT ATCAGCTAGA AGTTGATCTA CTTTGGCCAA GACTGCCTTC	2340
TCATCAAAAG TTCCAGGTG ATAGTTGGAT TGCAGGGATG GAATCTTGTT TTTCAAAGCC	2400
GCTTCATATC CCTTAGTTTG AACCTTGATG TAGTGATTGT GGTGCCCATG AGGAATCACA	2460
AAACCTTCTG AATCTTCACT TATAATTCGA TTGGCATCAA AACCATGACC ATCTTCTTCC	2520
TCATGATGGA CATGTAGTA CGGATTACTT AATACAGAAC TAGAAGAACT TCCTACCTCT	2580
TCCGTGTTAG AGTGTGATGG GGGATTGTTA AGAGATGACT TAGGAATATA GTGATAGTGA	2640
TCCCCATGTC TTAATATATA AGCATCACCT GTATCTCTGA CAATATCATT AGGGTTAAAG	2700
ACATATGTGG CTGCTAATTC ACCTGCCGAC AAGTCACTCT CAGGAATGAA ATGATAGTGA	2760
CCACCATGTG GTACTATAGT AGATTGAAAT AGAATATGAG CAAATTGATA AGGGGATTTT	2820
AAAGTAATTT CTAACAATGA TTTAGAACT ATGATGTGCT ATTCTAAATT CAACTCACTA	2880
TATATAACCA TCATCGGTAG TATAACGTCC CTGTAATTTT GCTACAGATA CTTCTGCACT	2940

1159

AGCTCCCTTA TCGTCTTTAC CATGTTCTTG TTTTGGCGA TTGATTTCAT CTTTGTTCG	3000
TACATTTTCT GCATGAGCTT GATCTTTAAG GTAAACATAA TACTTTCCAT CTACCTTAAT	3060
AATATATCCT CCCTTAACCT AACTGACGAT ATCTTGATCT TTCGGCTGAT AGTTGGGGGC	3120
TTTCATTAAT AGCTCTTCAC TAAAGAGCGC ATCAAAAGGA ACTTTACCAT TATAGTAGTG	3180
ATAATGATCG CCATGAGAAG TTACATAACC TTGATCTGTA ATCTTAATAA CAATTTGTTT	3240
TGCTTGAATT CCTTCTTTTT GACTAACCTA GTCTGGAGTC AAATTTTCAG TCTTCTTAGT	3300
GTCTTTATTA CTGTTTACAT ATGAAACACG ATTTTATCT GTATTGGCCT GTTAGCTATG	3360
TTGGTTCAGA GCATAAACAC ACAGACTTAA GGAAAGGATA ACAACAGATC CAGCTGCTAT	3420
ATATTTCTTT TTAATTTCA TAATTACCTC ATTTCTATAA TTATTTATAT GATGTCTTCA	3480
TTATTAAATG ATTAAATAAA TTAATTAACC AATTAATTA CTAGTAAATA TTCCACCTCT	3540
TTTTAAGTTG TATGTCAAGA AATTTTATAT ATTAATAATA AAATGAAATT CTCCCAAAGT	3600
CAGAGTTTAA TTTCTAAGTT TTGAGAGAAC TTCATTTTGG ATTCAGACTT TTTCTACTGC	3660
TATTCCTTAC GCTATGAGAT CAGATAAATT CTTTTTATC ACTTCTCCAC TTGGCAATCT	3720
TAATTCATTC GTTCCATCCA TATGAATAT AACACTATCT AAGCCTAATC CGTAACTAGC	3780
TGTAAATTTT TCTAATTTTT CTGTACAGG ATCTACTGCT GGAGCTTCCT CTAATGCTGG	3840
ATCTAACATA GGGTCACTCC CCACATTCCT TTCTGGATTC AACATTCCAT TATCCGTTGA	3900
GTTTCTGGT TTTACAGGTT TTTCTGTTGG TGCTCTGGT AAAGAATCTG CTGGTTTATT	3960
TTCTGTTGGT TGGTTCTCAA CTGTTCCAGT AGATACTTTT CCATTTTCAG ATGGTTTATT	4020
TTCACCATTT CCTTGAGGTG CTTCTCCTGT AAAATCTGCC ATATCTTTTT TAATGACTTC	4080
TCCCGATGGT AAATATAATT CAATTGTTCC GTCCATATTA AACAAGACAT TTTCTAGCTT	4140
CATCCCATAA CTTTCAGCAA ATTTTGCTAC TTTTCTTGT ACAGGATCCA CTGTAGGAAC	4200
TTCTTCTAAC GTTGAATTAC TAGTACTATT CCCAGTTTCA GAAAGTTTTT CTTTTCTAC	4260
CTTCTCACTA GTCTTTGGTT CTTCTACCTT TTCATCAAGT TTTAAGTTTT CTGTGCTTT	4320
ATTCCTTTTA AATGTGGTA GAATACTGG TTTATCAGTT TGATTTTCTT TTTCCAAGAT	4380
AGGTACTTCC ACAATATAAG TCGATTGATT GTCCAAATAA GCATTTGCCA TGAAGGTTAC	4440
AGGAATTTTA TTTCCGGCCG TTCTGGTTGT TCCTTGGTTT AATTTCCGAA TCGGTAATTT	4500
GATTTACCCA ACTTTATAGT TATTTCTAA ATAAGCATTT CCATGAAATT CATCAAACAC	4560
TCTGACTAAA GCATCAGTTC CTTTAGGCAC TGCAAATGA GGGTTCACTC TTAAATAAGT	4620
ATCCCCTGCA TGGAAAGGAT AGAAAATCGT TTGACTGGCC ATTTTGTAAG CTAAAGAGGT	4680

1160

TGGAAGCTGA	AATGTACCAT	CATAACTTAC	TTCTGGATAA	TCTTTTGAAG	CGATAGTATA	4740
CTTAAATGTT	TGTCCTGGTA	AATAAGGTTG	ATCTAATTCA	AAGTTTGCAA	TATTCCTTAC	4800
TCCTTCTCCA	AATACTTTAC	CAGATACTTT	CTCCAATACT	TTTCCATCTG	GTGTTATTAA	4860
TTTTACTAGC	ATATTGATAC	CTAATTTTTT	CTCCAATTCA	GGCGGAAAAC	TAAAAGAAAC	4920
GCGTTTTTGA	CCATTGGCTA	GAGTAAAGTT	TTGATTATTA	AACGTACTAT	TTTTTAACAA	4980
ATTAACAACA	TCGTTAATT	CTTCTCCAGT	ATAAACTTTA	TTCCCTTCTT	TTTTAGCAAC	5040
TCCTTCTTCG	GGTTTAAACA	GTCATAGTT	ACTGTGAGAA	TGACCAATTC	CAACCGGTTT	5100
ATGTTTCATCA	ATCGGATCTG	CATGATGGTG	ATCTCCATGC	GGATAAATAA	TCGCATTTTT	5160
TTCTTTATTC	ACGACAATAC	TTTCACGTTT	GACACCATAT	TGTTTCATAA	TGCCAGCAAT	5220
TTTTTCTTCG	ATTTTTTTAT	CTAAATCTTT	CATTTCTTTG	GCATTACTTG	GATAATCCTG	5280
TTCATGAGAT	GACAAAGAAT	CTAATCCATT	ATGACTAGTT	TTAACTTCCT	CTAAATGTTT	5340
TTGCGCAsCT	TAATTTGCTC	TTCTGTCAAG	TCCTTCTTGA	AGAAATAATG	ATTGTGGTCT	5400
CCGTGACTCA	TGACAAAACC	TGATTCATCT	TCAGCGATAA	TACGATTAGC	ATCAAAATCCG	5460
TATCCATCTT	CTTCATGTTT	CTCATGTGAA	GTTCTGGAT	TGATTGGAAG	AGATGGAGAA	5520
GGTGTGCTA	GACTATTGTT	TGGAAGAGTC	GGTTGCCCAA	TTTGATTTGA	TTTGGAATG	5580
TAATGGAAAT	GATCACCATG	TCTTACAATA	TAAGCTGTAG	CCGTTTCTTC	AACGATATCT	5640
TTTGATTAA	AAATATAACC	ATCAGATGCT	GAAGAGAGCT	CCTTACTTGT	CGTTAAAGAA	5700
GAAGGATTGC	TTGAAAGACT	GCCTAGACTA	GACACTACTT	CATTAGGTTT	TGCATTGTGA	5760
GAAAGCTGAG	AACCAGTTCC	ACTGATAGGC	ACCATTCTGG	CAATCTTTTC	TTCTAAGGCA	5820
GAAAGCTTGC	TGTAAGGAAT	AAAGTGGTAA	TGGTCGCCAT	GCGGAATCGC	AACTCCATTT	5880
GGGTACGAC	TGATAATCTT	AGCAGGGTCA	AAGACCAGGC	CATCTGATTG	ACTGTAACGT	5940
TGGGCGCTAG	GTGAATCATA	GAGTTCCTTC	AAAAGACTCT	GGAGATTTTC	AGATTTATTT	6000
GCTGGCTTGC	TAGTTGATCC	TTTGCTACA	GATTGCGTGT	TATTGTCACT	AGCTGTTGAA	6060
GAATAGCTTA	ACTGACTCGG	TTGCATATTT	TTCCAGCCA	GATGTGCTTT	AGCTGCTGCT	6120
AATTCAGTAG	CAGATAAATC	GCTTTTGGA	ATGTAGTGAT	AGTGACCTCC	ATGAGGAACG	6180
ATATAAGCAT	TACCCGTATC	TTGATAATA	TCAGCTGGAT	TAAAGACATA	ACCATCATTT	6240
GTCGTATATC	GTCCCTGAGA	CCTTGCTACA	GCAACATTAG	AGTTAACCTT	CTCATTATCT	6300
TTGACATGTT	CTGTGTTTTG	ACGATTGATT	TCATCTTTAG	TTGGAACATT	ATCAGCATGA	6360
GCTGCATCTT	TCAGGTAGAC	ATAATATTTT	CCATCGACCT	TGATGATATA	ACCACCTTTG	6420
ACTTCATTGA	CAATATCAGC	GTCTTTAAGT	TGATAGTTTG	GATCCTTCAT	CAAGAGTTCT	6480

1161

TCACTAAAGA GGGCATCATA AGGAACTTTC CCATTATAGT AATGATAGTG GTCACCGTGT	6540
GACGTTACAT AGCCCTGATC TGTAAATTTG ATTACAATTT GCTCAGCCTG AATTCCTTCT	6600
TTCTGGCTAA CCTGGTCTGG TGTCAAGTTT TCACTTTCT GACTTGACTG GCTGCCATCC	6660
ACATAAGAGA CACGATTATT GTCCTTATTT TCCTGCGAAC GATGCTGGTT TAGTGCATAG	6720
GCACATAGAC TCAAGGATAC GATAACAGCT GATCCAGCTG CTATATATTT TTTACTAAAT	6780
TTCATAAATC CCTCATTTCA ATAAATGATG AAGTTTTTTC TCAACTTCTT TTACTTTATT	6840
AAATAGTTTT CTAAACCCGG GGGTACC	6867

(2) INFORMATION FOR SEQ ID NO: 193:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 999 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 193:

CGTTCTAAAA ATGCAGTACG TTTGATTGAG AAATCAGTTA AAGGTATGCT TCCACACAAT	60
ACACTTGGAC GCGCTCAAGG TATGAAGTTG AAAGTATTTG TTGGAGCTGA GCACACTCAC	120
GCTGCAACAAC AACCAGAAGT TCTTGACATT TCAGGACTTA TCTAAGGAAA GGAACAATAA	180
AGTATGTCAC AAGCACAATA TGCAGGTACT GGACGTCGTA AAAACGCTGT TGCACGCGTT	240
GCGCTTGTTTC CAGGAACTGG TAAAATCACT GTTAACAAAA AAGATGTTGA AGAGTACATC	300
CCACACGCTG ACCTTCGTCT TGTCAATCAAC CAACCATTCG CAGTTACTTC AACTGTAGGT	360
TCATACGACG TTTTCGTTAA CGTTATAGGT GGTGGATACG CTGGTCAATC AGGAGCTATC	420
CGTCACGGTA TCGCTCGTGC CCTTCTTCAA GTAGACCCAG ACTTCCGCGA TTCATTGAAA	480
CGCGCAGGAC TTCTTACACG TGACTCACGT AAAGTTGAAC GTAAGAAACC AGGTCTTAAG	540
AAAGCTCGTA AAGCATCACA ATTTAGTAAA CGTTAATTCG AAAGAATTAC TATACTTATA	600
CAGAGCACCT TTCGGGGTGT TCTTTTTTTA TACTTTCTTA CTAAATTGGT GCAATTGACA	660
CAGTTGTTGC GACTTTAGTC GCTTACAAAT GTGGCTGCAA CCTGACATGG TCAGTTGCCT	720
CAAAACGTTA ATCAATACGA TTATATCAAC GTTTCAAAGC ACTCAAGGGT TTACCCTATG	780
GGTGCTTTTT TCTATACTTT CTAAAAAAGT TTACCCTAAA ATTTGCCCTA AAATTACCCT	840
ACTTATTTTT AAGATGTTGG TAGGCAACTT GTCCAGCAGA TAATGGAAC ATGTTTGAAG	900
TATTAACATA AGTCTTAGTT GTAACGGTAT CGCTATGAGT TAATGCTTCA GAAATGGCTT	960

1162
CTAAGCTCAT TCCTGCTTTT TTAGCAAGTG TCGCTCCTG

999

(2) INFORMATION FOR SEQ ID NO: 194:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2315 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 194:

AATATTATCA CTGTTCTTGA AGGCAGAACA CAAGCTGTCA TCCGAAATCA CTTTCTTCGC	60
TACGATAGAG CCGTTCGTTG TCAAGTGAAA ATCATTACGA TGGATATGTT TAGTCCTTAC	120
TATGACTTGG CTAACAGCT TTTTCCGTGT GCTAAATCG TTCTAGATCG TTTCCATATT	180
ATCCAACATC TCAGCCGTGC CATGAGTCGT TTTCTGTTC AAATTATGAA TCAGTTTGAA	240
CGAAAATCTC ATGAATACAA GGCTATCAAG CGTTACTGGA AACTCATCCA ACAGGATAGT	300
CGTAAATCA GCGATAAAG TTTTATCGC CTTACTTTTC GCATGCACCT AACAAATAAA	360
GAAATCTTG ACAAGATTTT AAGCTATTCA GAAGACTTGA AACACCACTA TCAGATCTAT	420
CAACTCTTAC TTTTCACTT TCAGAACAAA GACCCTGAGA AATTTTTCGG ACTCATTGAG	480
GACAATCTGA AGCAGGTTCA TCCTCTTTT CAGACTGTCT TTAACCTT TCTAAAGAAC	540
AAAGAGAAAA TCGTCAACGC CCTTCAACTA CCCTATTCAA ACGCCAAAT GGAAGCGACC	600
AATAATCTCA TCAAACTTAT CAAACGAAT GCCTTTGGTT TCGAAACTT TGAAACTTC	660
AAAAACGGA TTTTATCGC TCTGAACATC AAAAAAGAAA GGACGAAAT TGTCTTTCT	720
CAAGCTTAGC TTTCTTCAA CCCACTACAG TTGACAAAGA GCCTATTTTC GCTGATTCTC	780
CACTACATTT GACTGGATT TAATTTTTTA GAGAAATACA AAAGAGCTAG CTTTAGCTAG	840
CTCTTTTCT ATGCGGAGAG AGGGAAGTGA ACCCTCACGA CCTAAAGCGG TCACAGGATC	900
CTTAGTCCTG CGCGTCTGCC AATTCGCCA TCCCCGCGTC GATTACTTTA CTAGTATATC	960
AACTTTTGGG ATGCTTGTCA AACTTTTTT TCAAATTTT TCATTTTCAC CAACCAGGTT	1020
ACTCAAAAAG TTCATTAGA TTTTCATCTA CTAAGTAGC TCCGAGTGA TTTTGAAAT	1080
GACCTAGGGC AAATTGATGA TTTTCAGGCC AGATGGAAGC AACAGCTGGT TTAACAATCT	1140
CGATGTCATA TCCTAGATTA TAGGCATCTA TAGCTGTATG TAGGACACAG ATATCCGTCA	1200
AGACACCTGT TAAGATAACG GTAGACACTC TACGCTCTCT CAAACGAATA TCTAGGTCAG	1260
TCCCTGAAAA AGCTGAGTAA TGGCGTTTAT CCATCCAAAA GACACGACTG TCTGAACCAT	1320
GCTCTTGATA AAAGATCCCC AAATCTCCAT ATAAATTCGG TCCACTCGTC CCAATCAGAT	1380

1163

TATGAGGAGG AAATAACTTA CTTTCCGGAT GGAAACAATC GTTTTCTTCA TGAGCATCAA	1440
TAGTAAAGAA GATATAATCT CCTCGTTCAA AAGCTAATCG AGTTACCTTG CTGATGGCAT	1500
CCGAAATCGC CTGAGCTGGA GCACCTGCTG TTAGTTTCCC ACTATCAGCA ACAAATCTT	1560
CTGTATAATC AATCGAAAT AAAGCCTTG TCATTAGTAA TCTCTTTTCT TCACTTCTTC	1620
AAAAATATCT GAAATCAAGA CCTTAAGATA GGTTCCTTC ATTCCAAGTG AGCGACTTTC	1680
AATAATCCCC GCAGACTCAA GTTACGAAG AGCATTGACA ATCACAGAGC GAGTGATTCC	1740
GATACGATCT GCAATCACTG ACGCAGTCAA CTTCCCTTCA TTTCATTTA ATTCCCTTAA	1800
AATTGCTGAA ACAGCACGGA GTTCGGAGTA AGAAAGGTA TTGACCGCCA TGGTGACAGC	1860
AGTACGACGA CGAATATTTT TCTCATCTTC TTCACGTTGG AAGTTAAGAA GCTGAATCCC	1920
AACAACGGTA CTGGCAATCT CAACAAGAAC CAAGTCCTCA TCTTGAATT TTTTATCAT	1980
ACGCCAAATA ATCAAAGAAC CAAGGCGAAT CCCCAGTACA TGAATCGGTG CAATAGTCGT	2040
CAAGCCATCT GGAAATCAT CTCTACTCTC AATAGGGAAA ATACTCATAT CATGCTCAAC	2100
AGGCAAGTTT GCTTCTGTTT CGTAAATCAT ATTAGCCCCT TGAACGTAGT CATCTGGGAA	2160
AATCTTAGTT TGGAAGAATT GCTTACGCGA TCTGTATTG TTTTATAACG CATAAAATAG	2220
CCAAGCAGAC GTCCCTTACT ATTGATAATG CAGGCATTGC AATGAATAAT ATCCGCTAAC	2280
TGACGCGTAA TAGCGTTGTA AGGGAGCTCA TCTCG	2315

(2) INFORMATION FOR SEQ ID NO: 195:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6693 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 195:

CGATTCTTTC CATTTCTTCA AATAAGAATA CTTTCTCTGA CATATGTGTT ACCTTCTTCA	60
TCAAAAATTA TTTTGTAATC GATTACATTG CAGATCGTAA CATAAAGAAA AACAGATGTC	120
AAATATTAAA CGTAAAAACA TGGTCACTAA AGAACTATAA GAGAAAAGGT AAACCTAGCG	180
ACGCGATGAA CGCTGGGTCG TTTGGTTTCG ATTGCTCTCT TCCTCTTGT TTTTCTGTTC	240
TTCTTCTTGT TTTTCTCAG CTTCTTGGC CTCTGTGTG GCTTTTCTCT CAGCTTCCAT	300
AATTAATTTA TCCGCCACAG TGTAGCTGTA GATTCCAGCT TCCATGTGTA CCACACTCGG	360
TTCTGACAAT TGAGGCTTAA TCTTACTGTA ATATGGCAGT TTCTTACTCA TTTCAGATAG	420

1164

AGGAACCAAG ACTTCGTCCG AATCATTTCAT GGTCAATCGA ATTAAATCGG ATGTCACCTT	480
GCTTGGGGCT AATTCACCT TTTGGATAGC CGCCTTGAGT TCTGGGCTAA TTTGAGCAAG	540
TTCTGAGACA AAAACTTTGA TTTGTTCACT ATCATTTAAAG AGAACTGATA AATAAGTTTC	600
TGGTAAACTG TTCAGACTCA CAGAACTAGT CTCAAGCTGA CCACTGGAAG GAATAGGATA	660
ATGATTTTCA CCAGAAATAT AGTAGGCCAC AATATCATAT TCCTTGACCT TAATAGTGAA	720
CTTAGTTGGA AATTGATAGA CAAGTTGAGC TGATTCAACC CAATAGTTAG ACTTAATCTG	780
CTTTTCATAT TTTGCCTTGT CTAGCAGAAG GTTAATCGTA TAATCCGAAT CCTGAATGCC	840
TGAAGCCTGT CGAATATCAT CAGCTGTAGT TTGCACCGTT CCCTCAACAC GAATATCTTT	900
CATGGTCGCA TAAGGACTGA GCAAGTAGGC AGAGACAAAC AATAGAAGCA GACTTGGAAG	960
TAAATTCGTG AAGGCTCGCA AGATATGGAT ACCAGGAATC TTTGCTTTGG CTGGTTTTTC	1020
CTTTGTAGCC TTTTGTAGAA GCTTTTTATC CTGTTCTCTC TTCTCTTTAG ACTCTGGTTC	1080
TTCTTTCTCT TCTTTCTCTT TGTCAGCCTC TGAGGATGCT ACTTTTCTCT CAGACTCTTC	1140
CTTAGCTGAT TCTGAATCTT CCTGGTCTGT TTCACTCTCC TGGTCTCTGT TATCCTCTGA	1200
CTTCTCAGAT TCTTCTCCCA TTCGAGCTTG TCTTTCCTTT TCCTTCTCCT CAGCTAGAGC	1260
CGCCTCTTCT TCAGCCTTCT TTTTGTAGTA TTCTTGGTTT CGTTTCTGCC ATTCTGATAA	1320
CTCTTTCAAT TCTTCGAGGG TTTCTTTGTC CTCATTTTTC TTATCTTTTG ACATTTACTT	1380
TCCTTATGAT AAATCTTTT TCAACAATTG ATAAAAATCT GCTAGAGATT TCAATTCCTT	1440
AGAAGCTTTC ATCTTAGCTT GGTAACTTTC CTGTGACTT AGTAAGTGAG AAAGCTTCTC	1500
TTCCAAACTA TCCAAGGTCA AATCGCTTTC TTGAAGGTCT TCTGCATAGC CTTTCTTAAC	1560
AAAGTAAGCT GCATTTTCAA TCTGGTCACC ACGACTAGCT TCACGACCAA GCGGCACAA	1620
GACATGCAAT TTTGCTATCG CCAAGAGCTC AAAAATCGTA TTGGCACCAC CTCGTGTAC	1680
AACAATATCA GCCAATTCCA TCAAGGTTG ATAGAGATCG GTCACATAGT CAACACGAAA	1740
AAGATTTTGC CTCAACTCAT TCAGACTAGA ATCTCCAGTT AGATTGATAA TATTGTAGCG	1800
CTCTGTTAGT TCTTTCTTAT GGTCTGTCAC CAATTGGTTA AAGACACGAG CGCCTGCAGA	1860
ACCGCCAACA AACAATACAG TTGGCAATTT GGGATTAAAG TGGGTTTGAA TATCCACCAA	1920
TTCACTCTGGT TCTGGAGTGT TTTTGTCCGA AACCTTGGTC ACCGCTCCCA CATGCTCAAC	1980
CTTAGCCAAA CTCGAAGCTT GTTCAAAGGT TGAATACATC TTAGTCGCAA ATTTATAGGC	2040
GATTTTATTG GCCAAGCCCA TAGACAGGTC AGATTCTGTA ATAAAGACAG GCACTCCTGA	2100
CACACGCGCA GCGATAACAG GCGGTACTGA GACAAAGCCC CCTTTTGAAA AAAGGGCTG	2160
TGGACGCAGT CGCAACATGA TAAAGAGCGA TTGGACAATT CCCCACCAA CTTTGAAGAC	2220

1165

GTCCAGCATA TTTTGCCAAG AGAAATAGCG ACGCAATTTT CCAGTCGCAA TAGAATGGAA	2280
GGTGACATCC AAACCTGACT TAAGGATTTT TTGGTGTTCG ATACCACACT TGTCCCAGAT	2340
ATAGTGGACT TCCCAACCAT CTTCGATGAA CTGGGCATT AACAAAAGAT TGAGGGTAAC	2400
GTGTCCAACC GTCCCCCAC CTGTAAAGAC AATTTTTC ATATTATTCT TTAACTCCG	2460
CTACTGTGTC GATAAAGAGG TCGCCACGTA CTTCAAAGTT AGCATACATA TCCCAGCTAG	2520
CATTGGCAGG ACTAAGAAGA ACCACATCTC CTTGAGTCGC AAGCTCATAG GCCTTGCGGG	2580
TGCGATCTGC AATATCTGTC GCCTCCACAT AAGCGACACC AGCCTTGCTCT GCTGCCCGTT	2640
TGACACGTTT TGCAGATTGA CCCAGGATGA CCATCTTCTT GAGTCCAGTA ATGCTGGCA	2700
CCAATTCGTC AAACCTCATTG CCACGGTCCA AACCACCTGC AATCAAGACG ACCTTGCTGT	2760
TGTCAAATCC TGACAAGGCT TTTTGAGTAG CCAAGATATT AGTTGATTTA CTGTCGTTAT	2820
AGAATTTAAC ACCCTTGATG TCATCCACAA ACTGGAGACG GTGTTTGACA CCACCGAAGG	2880
CTGAAAGAGT TTCCTTGATG GTTTGATTGT CCACATCAG AAGCTTGGCT ACAGCAATAG	2940
TCGCAAGGGC ATTTTCCACA TTGTGGCTAC CTGGAACACC GATTTCATTC GCTGCCATGA	3000
CTACTTCACC ACGGAAGTAG AGTTGACCAT CTTCCAGATA AGCTCCATCA ACCTTTTCAA	3060
GTGTTGAAAA TGGTACAACA GTGGCTTCTG TCTTGAAGT CAAGTCTTTT GCCAAGTCTT	3120
GATTAAAGTT CAAGACAAGG AAATCAGCTG CTGTCATCTT GTTCTGGATA TTCCACTTGG	3180
CTGTACATA TTCCGAAAAT GACCCATGGT AGTCGATATG AGTTGGCATG AGGTTGGTAA	3240
TAACCGCAAT CTCTGGATGG AATTCTTGAA CACCCATGAG TTGGAAAGAA GAAAGTTCCA	3300
TAACAAGCGT GTCCTTATCT GATGCTATTT GAGCAACCTG ACTAGCTGGA TAGCCGATAT	3360
TCCCTGATAA AAGACCATGT TGGCCAGCAG CAGTCAAAC TTCCCAATC ATAGTCGTTG	3420
TGGTTGTCTT ACCGTTGAT CCTGTGATAC CAATAATCGG TGCTTCTGAA ATCAAATAAG	3480
CCAATTCAC CTCAGTCAAG ACTGGAATTC CCTTGGCCAA AGCCTTTTCA ATCATGGGAT	3540
TGTTGTAGGG GATACCTGGA TTTTTCACCA TAAGGGCAA CTCTTCATCC AAGAGTTCCA	3600
AAGGATGGCC ACCTGTAATG ACCTTGATCC CTTCTTCCAG CAAACTTTGG GCAGCTGGAT	3660
TGTCCTCGAA AGGTTTCCCA TCATTACTG TCACAATGGC ACCTAGCTTG TCCAACAAAC	3720
GAGCTGCAGA TTCACCAGC TTGGCCAAAC CTAACAAG GACTTCTTA TTTTAAATT	3780
GATCTATTAC TTTTATGCT CGAACTCCAT TTCTACTCCT ACTATTTTAC CATTTTTATG	3840
GAAATAAAAA AGCCACAAAG TGTGTTGTG ACTCTTCTT CTAAGTGAAT CTTACCATAT	3900
CATCTATGTG ATAAATCGGT AACTCGAATG ACCTGATCCA CTTGCTCCCA AATCAGAGGA	3960

1166

TTATGGGTCG CAATAATAAT GGTCCGATTC GGATTTTSTA AAGATTCTAG GATGGAAAGT	4020
AAATCCTCAG AGTTTTTGGG GTCTAAGGAA GCGGTTGGTT CATCTGCGAG GATCAAAGGT	4080
GGATCCTTTA AAATTATCTT CGCTAGTGCA ACACGTTGTG CTTCTCCTCC TGATAACTCA	4140
AAATAGGTT GCTTCAAATC CAAATAAGAG AGGTTTACAC GGTTTAGAGC TTGTTTCATC	4200
AAAGAGATTT TCTCTTTTC CTTCAACTTT TTACCAACTA AACCCAGATT GAGATTCTCT	4260
TTGACGGTTT GGCTTTCAAT TAAGCCAAAA TCTTGAAATA AGTATCCTAA GTAATCTCTA	4320
AAGAAAACAG AAGGCTTGAT GTCCTTAAGA GAAGTGCCAT CATAGATGAT TTGCCCTTTG	4380
TCATATGGCT CCAATCGTCC AATCATATTC AAGAGTGTG TCTTACCACA GCCACTTGTA	4440
CCGATTAAAG CATAAATTTT CCCACCTTCA AATGAAGAT TCATATCTGA AAATAGCTGA	4500
CGGCTTCCAA ATTTTTTAGA TATATCTTTT AGTTCAATCA TCCTATTTTC CTTTCATAAT	4560
TGTACATAGAA ACACGAGATT CTTTCTGCGC TTGACGGTAA AGCGTCAAAA CTGCACTAGC	4620
TAGAAAGACC AATAAAGTGA GCAAGCCAAT CACCAAGTCT CGACTGCTTA AAATAAAGAG	4680
ACTAGCACCA AATACAAAAC TAGCAAATTG GCTAACCATA TACTGAGCAT GTGTTTCAAA	4740
AAATCGTAAA CCTGAAATTC GTTAAATCAA GATATCTCGG CGGAATTGCT CGAAATATAG	4800
AAGATTGACA GAATAAAAGA GTAACAAGGA ACTGGCTATT CCAACAATAG CTCCTAAGAT	4860
TAAAGTTGCT GTTTCAGTTT GAACTTCATT ATAACGAGTT AGATAAACAC TTCTCTCTTC	4920
TTTAAGATAG GATACTTGCT CATAAATTC AGCTTTCTTC AAGAGTTCTA GCCCACTCTC	4980
ATATCCTTTG ATAAAGAGTT GTTTTCCAGC ATTGATAGAC CAACTAGATA AGGATATAAA	5040
ACTATCACCT GTAGAAGTCG GCGTGAATAC CACTAAAATC GGATCAGTCA AATACTGAGT	5100
AGATACGGGA TTCTCACCCT TATTATAAAC AAACCGCTTT TCTCCCATG AAAGATAACT	5160
AACGTGCGCT TTCATCTCAT AATCCAAAGG AGCACTTGCC TCCTCACCAG ATTTTCCATA	5220
ATAACTCAAT CTTTCTTCAA AAACCTTCTT AAGTTCTGCT TCTCGAGAGC GCAAATGTTT	5280
TGGGAGCAAG AGGATAAACT CACCTTTTTG GAGATGGGCT AACTTCTGTT TGGTCTCAGC	5340
ATCTACCACG ACCTTTTCCT TGTCCAAATA ACTGGGACTA ACATAGAGCG TATTAGCATC	5400
TGAACTATAG GTATCCAGTG TCTCTCCCTG TTCATTTTTT CTTGTGGAT TGGCAAATG	5460
GAGCAGATTA TCCTTTACAT AAAGAGCTTG TTCTTCTCG ATTGCTTCCT TGGCAAAGGC	5520
ATACCACTTG CTCTGATTTT CTGTATCTTT TCCTCTATCA CCTAAGCCAA AGGAAATCTG	5580
GTAATAGTCT GCTCTGCTCT GCCATGCTTG TTTTGAAATT TCAAGTTCTT TCAATCGTTG	5640
GTAAGACGTC AAACCTGTCT TAACAGCGTA GCCTACTGTA AAAACAGCTA CTAAGTACA	5700
CAATAGGGTT AAAGCCATCA AGCGTTTAAG GGGTAATCTT CCCTTAATAA CGGGAACATA	5760

1167

TGCTTTGTAA CTCAAACCTCA TTAGGTAAAG GAGCATTAGT AAAATTGAAA TCGCCAATAA	5820
AAACAACAGA TAGAAACTAA TCCCAAAACC ATAGGTGGCT AACAGATAG GATAAAACAA	5880
ACCTTGACTA AAAAGAACGA CTCCCCACC TAGGAAGGAA AGGAGGGCTG ATAGAAGGAG	5940
CCATTTGATA TCAGTAGATA AAGAAATGCC CATGATGGAT AAGAGAGTCT GACCAGAAAA	6000
GAGTTTATA CCTGCTGCTC TCATTTCCTT AATCCGAGTG ATAATCACTA AAGCAAAGAA	6060
AGATAAGCCA AATATTGCTA AACTAATTAA AATAAGGGGA TTTAGTAATA TTCGAAAAGC	6120
AAGAAAATAG GCGGTATCTT TTCGGTCAGC ACTTGCTTTA TAACCCAAAT CTCCTAATTT	6180
ATCGGCAAGC TTTTCTTTCG TCAAGGAGCC TGACAAAAGG AGATAACTAT TTAGCGGANT	6240
AtACGTTTAC GACTTTCTTG GCTAGCTTCT TGGAATTCTT TTGGTAAAGT TCCCTGACCA	6300
TAAGTTGCAT AAGTAAAGTG AGTCGTCCCA TCCTTACTCG GCTCTACAAT TCTTCTAGCT	6360
ATTAAACTCT GTTCTGAGTT TGCAAAATTC TCCAATTCTT GTTCAAATAC CTCACGCGTC	6420
GGTTCCTGAG TATCTTTTTT GACACGAAGT AAAGAAACGG AATCATAGCT TGCATATAAA	6480
TATTGTGGCG CACGTAAGAC AATAATCCAA GCAAGGAAGA AGCTGAGAAA AAAAGTTGAT	6540
AATAATATGA ATAGTTTCTT CATAGTAGAC TCCTTGTAAG CAAAATTCCC CCTGTAATTT	6600
CTTACAAGGG GAACGATTTA AATCAATGAA CGATTAGTCA TAATCACAGT AAAATGCTAC	6660
TTGTTCTCCC CATTTAGTCC AAATCCATGC AGG	6693

(2) INFORMATION FOR SEQ ID NO: 196:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1847 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 196:

CCGGTCTATG TACCCACTAC TTTGGGACAA TATGGGGATC AGCTACCCAA AACTAATCGA	60
GCGTTTGTTT GACCTTGCCA AGGAAAGTTT TGACAAGCGC GACGATTGTA TATAAAATGA	120
AAGAGAGGGT AGAAGCCAGA ACCATCACTG CACGGTGACT AGAGTTCTCG GACTTCAGCC	180
CTTTTTAAAG GAGTAGAAAT GAAATTAACA ATCCATGAAA TTGCCCAAGT TGTGAGAGCC	240
AAAAATGATA TCAGTATCTT TGAGGACACC CAGTTAGAAA AAGCTGAGTT TGATAGTCGT	300
TTGATTGGAA CTGGAGATTT ATTTGTGCCA CTTAAAGGTG CGCGTGATGG CCATGACTTT	360
ATTGAAACAG CCTTTGAAAA TGGTGCAGCA GTAACTTGT CTGAGAAAGA GGTCTCAAAT	420

1168

CATCCTTACA TTCTAGTAGA TGATGTTTTG ACAGCCTTTC AATCCTTAGC ATCCTACTAT	480
CTTGAAAAAA CGACTGTTGA TGTCTTTGCT GTTACAGGTT CAAATGGCAA GACAACGACT	540
AAGGATATGT TGGCGCATTT ACTGTCAACA AGATACAAGA CCTACAAAAC ACAAGGCAAT	600
TACAATAATG AGATGGGCCT TCCTTACACA GTTCTTCATA TGCCTGAAGG AACAGAAAAG	660
TTGGTTTTGG AGATGGGACA GGATCACTTG GCGATATTC ATCTCTTGTC TGAATTGGCT	720
CGTCCAAAAA CAGCCATCGT GACCTTGGTT GGAGAAGCCC ATTTGGCCTT TTTCAAAGAC	780
CGTTCAGAGA TTGCTAAGGG AAAAATGCAA ATTGCAGACG GAATGGCTTC AGGTTCTTTC	840
CTTTTAGCGC CGGCTGACCC TATCGTAGAG GACTATTGTC CAACTGATAA AAAGGTGGTT	900
CGTTTTGGGC AAGGGGCAGA GCTGGAAATT ACTGACTTGG TTGAGCGCAA AGATAGTCTG	960
ACCTTCAAGG CCAATTTCTT AGAGCAAGCC CTTGATTGTC CAGTAACTGG CAAGTACAAT	1020
GCGACAAATG CTATGATTGC ATCCTATGTT GCCTTGCAAG AAGGAGTTTC AGAGGAGCAA	1080
ATTCTGTTGG CCTTCCAAGA TCTTGAATTG ACGCGTAACC GTACCGAGTG GAAGAAAGCA	1140
GCCAATGGAG CAGATATCCT GTCAGATGTT TACAATGCCA ATCCAATGTC TATGAACTG	1200
ATTTTAGAGA CTTTCTCTGC CATTCAGCC AATGAAGGTG GCAAGAAAAT TGCAGTGTG	1260
GCGGATATGA AGGAGCTTGG TGACCACTCT GTTCAACTTC ATAATCAGAT GATTTTGAGC	1320
CTTTCTCCAG ATGTGCTTGA TACCGTGATT TTCTATGGAG AAAATATTGC TGAATTAGCC	1380
CAATTGGCCA GTCAAATGTT CCCAATCGGC CACGTTTACT ACTTCAAGAA AACAGAAGAC	1440
CAGGATCAAT TTGAAGACCT AGTCAAGCAG GTCAAGGAAA GCCTTGGAGC CCATGACCAA	1500
ATCCTGCTCA AAGGCTCTAA CTCTATGAAT CTAGCCAAGT TGGTAGAAAG TTTAGAAAAT	1560
GAAGACAAGT GATTTTGTC AATGATTGCA AAGAATGATT GCCATTACAG ATACTGGCTT	1620
AACCTTTACA AAAGATCCGT TTGACCGTGA GCGCTACGAA GACTTGCGAA GTCTGTTATC	1680
TGAAATGTTG AATCAAGCAT CAGACCTTGA TTCCGAAGAA GTGGCAGAAG TCTTGAAGCC	1740
AACTTCTGCT TATGCGACTC CGTTAATGGA CGTCCGTGCT TGGATTGTTG AGGATGAGAA	1800
GATTTGTCTG GTTAGGGGAC AAGGAGAGGA TAGTTGGGCT TTGCCGG	1847

(2) INFORMATION FOR SEQ ID NO: 197:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1062 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 197:

1169

CAAGCGAAAA CATT TTTTAT TCCAAATAAA CAGAGCATT TAGGAGAACA AGAGATTTTG	60
AATGCCAAGT CGATCTGGC CTTGCTAGAC GGT TGGAGT CACATAGCTA TGATGTAGTC	120
TATCTCCGTC AGCCTCTTAA TCGTCTCGAA TATATCGAGT GTGCGATAGT GGGGCAATCA	180
CAATTTCTCT TTAAGTCAG TTATGCTGAT GGTCAAAAGG CTTACCGTGT CGATCTTCCT	240
GACCTACTAA CAAAGACAGA CTGGCAGATT ATCAAGTCAT TTTTAGATGC TTTGCTTGCT	300
TATACAGGGA CTGATATTGA AGGGCTAGAT GGT TTTGATT TTGAAGCTTA TTTCCAAGCA	360
AGTATTCAAG CCTATCTAGC AGACCCTGTA GCTCGTTTTA CGATTGCCA AGGAATTTT	420
AATCCTATTT TCTTTAGTCG TGAGAACTTG AAAAGCTTTT TAGAGGCAGA TGGCTTGGCT	480
CAGTTTGAAG CGCGTGTGCG TCGGTTCAA GAGACAGATG CCTACTTTCG GAGAGTTTCC	540
TTCTATCAGG ATGGAGAAGG AAAAGTGCAT GCGGTTTACC ATCTAGCTCA AGGAGTCAAG	600
ACAGTTTAC CGAGAGAACC GTTTGTTTCT GCAGCCTATA TTGAGCAATT GGTGGATAAG	660
GAAGTCCAGT GGGAGATTGA CTTGGTTCAA ATCACAGGAG ATGGCTCTAA ACCAGAAGAC	720
TATGAAGCCA TTGCTCGCTT GGACTATGCA AAATCTTAG AGGTATTACC CCCATCTTT	780
TACCACCAAC TAGACGCCAA TCAAATAGAA GTGCAACCCA TATTAGACAA AGATTTTAAA	840
ACATTAGCAC AAGAAAAGTA AAGCAGAAGC AGGTCAATCG ACTTGCTTTT TTGACATAGA	900
AAAAATCCTG CCAAGaTGAC AGGATTGCTA CTCAATGAAA ATCAAAGAGC AAAC TAGGAA	960
GCTAGCCGCA GCTGTACTTG AGTACGGTAA GCGAAGCTG ACGTGGTTTG AATTTGATT	1020
TTGAAGAGTA TGAAGTTTAA AGAAAAGCCA AGATACGAAG AT	1062

(2) INFORMATION FOR SEQ ID NO: 198:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6846 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 198:

TATCTACAAC CTCAAAAACA TGT TTTGawG gCTCGTCAGT cTATCTACAA CCTCAAAAAC	60
ATG TTTTgAa kGClcGTCAG tTCTATCTAC AACCTCAAAA ACATG TTTTG AcaGCcTcGT	120
CAGTTCTATC TACAACCTCA AAAACATGTT TTGAGCTGAC TTCGTTAGTT TCATCTACAA	180
CCTCAAAAAC ATG TTTTGAG CTGACTTCGT TAGTTTCATC TACAACCTCA AAAACATGTT	240
TTGangnCnT CGTCAGTTCT ATCTGCAACC TCAAAGCAGT GCTTTgagcG CTTCGTCAGT	300

1170

TCTATCTACA ACCTCAAAAC AGTGTGTTGC GCAGCCTTTA ATCAGCCGCC TAGTCCGCTC	360
TATGGTATTC ATTAAGTCAA CATCTCTTGT TTAAGAGCAC CAAATCAGGA AATCTTCTCG	420
ATTCCTTGAT TTTTCTATT TACGTTTTCG TGTGAGCTA CGTTCTGTCA AACCATGAGG	480
TAAGAGAACT TCACGTTCTT CCAACTCTTC CTTATGCATA ATCTTGGTCA ACATACGCAT	540
ACTAATGGCA CCAAGGTCAT AAAGAGGTTG GGCAATCGTT GTCAAGTTTG GACGGGTAAA	600
GCGTGAGATT TGTGAATCAT CACTAGTAAT AATTTCAAAA TCTTCTGGCA CAGAAACACC	660
CTTATCAGCC AAACCGTTCA AGACTCCTGC TGCCAACTCA TCACCTGTCA CAACTGCTGC	720
AGTTGCATTT GATGAAATCA AACGCTCTGC TAAGGCGTAA CCATCATCAT AGCTATATTT	780
AGATTCAAAT ACCAAACCTT CACTATAAGT GATTCCTGCT TTTTCAAGG TTTCTTGTA	840
GCCAACTAAA CGAACCTTAC CATTGATGTC ATCCACTAGC GGACCGCTAA CGAAAGCAAT	900
ACGCTCATTT TCTTTAGCAA GGTAACCTAC TGCATCAATT GTTGCTTGCT TATAGTCAAT	960
ATTGACACTT GGCAACTGGT GCTCAACATC GACAGTTCCT GCGAGAACA TCGGAGTACG	1020
TGAACGCGAA AATTCTGAGC GAATTTTATC TGTCAAGTGA TACCCCATAT AGATAATGCC	1080
ATCTACCTGC TTTGAAAAGA GGGTATTGAC AACAGAACT TCTTTCTCGT TATCTTCATC	1140
GCTATTAGCT AGGACAATAT TGTAATTGTA CATTTCTGCA ATATCATCAA TCCCCTTAGC	1200
CAAACCTGAA AAATAACCAT TGGTAATATT TGGAAATCAG ACACCGACAG TGGTTGTCTT	1260
TTTACTTGCA AGACCACGCG CAACTGCATT TGGACGATAA TCCAAACGAT CAATTACCTC	1320
TAGCACTTTT TTACGGGTAT TCTCTTTTAC ATTTTATTG CCATTGACCA CACGGCTGAC	1380
CGTCGCCATG GAAACACCTG CTTACAGAGC GACATCATAA ATGGTTACTG TATCATCTGC	1440
ATTCATTCTT TTTCTGTCC TTTCTATCTC ACACATTCTT TTACAAGTAG AGGTACTGAT	1500
TGAAGCTCTA TATCTACTTA CAAAAGTGAA GATGTGAAAA TTTCGTTTTC ATATTTCTAC	1560
TTATTCCATT CTATCACTAA TTGTAAACAC TTTCAAGTGT TTTTGAAGA TTGATTGAAA	1620
AAATTCATA GAAAACCTAG GTTAGCTCC TTGCTACCAC CTTAGACTAA AAAAAAGGA	1680
GGAAACTAAG CCTCCTAAA GTTATAGTAA AATGAAATAA GAACAGGATA AATCGATCAG	1740
GACAGTCAAA TCGATTTCTA ACAATGTTTT AGAAGTAGAG GTGTACTATT CTAGTTTCAA	1800
TCTACTATAG GTATTGTTCC ATTCACTACC GTCAATTTTA GCACATAGTC TTCATGAAAA	1860
TATTATATCA TCATAACCA CCAGATTCTT TCGCGATATT AGCTGCCTCT GTTCGATTAC	1920
CTGCATCTAG TTTGAAAGA ATATTGGTGA CATAGTTTCG GACTGTTCCG TTGGATAGAT	1980
AAAGTTTGTC TGCAATTTCT TGGTTAGAGA AGCCCTGAGC AATTCCTTTT AAAACTGCGA	2040
TTTCTTGCTC CGTTAATGGA TTGGGATGCA TCATACCAC TTCCATCAAT TCAGGCGAAT	2100

1171

ACTCCTTGCG TCCTTCGAGG ACGGTGTGCA AGGTTTGCAT GAGGTCTGCA ATGTTTCCTT	2160
CTTTTAATAC ATAAGCATCT ACTCCAGCCT TGACCGCACG TTCAAAATAC CCAGGACGCT	2220
TGAAGGTCGT CACCACAACC ACCTTTGTTT CAAGCTTTTC TGCTCGTATC CACTCCAAGA	2280
CTTCAAGACC TGTCTTAACA GGCATTCTA CGTCAAGGAT GCGGATATCT ACAGACTCCT	2340
TTTCTAATAG TTGGATTGCT TCTTGCCCAT TCTTGGCTTG AAAGACAGAC TCTACATCCG	2400
GTTGAAGCAT GAGCAACTGG CACATGGCAT CTCGCAACAT ACTTTGATCT TCTGCGACTA	2460
ATACTTTCAT CTACTTTCTC TCCTTATAAA GTAGTCGAAC CTGCATTCA GTTGGATGTT	2520
TCTGACTGAT TACACTTACT TCTCCTGAAA ATGGA AAAAC ACGATTTCGG ACTGTATGGA	2580
GCTCATCCCC GCTTATAGAG GCAAAGCCAC AGCCATCATC TCTCACTGTT AGAATGAGTT	2640
CTTCTCTGT CCGTTCTAAT TTCAAGTAGA CTTTAGACGC TTTAGCATGT TTGATGATAT	2700
TGGTCACTAA TTCAAGCAA ATCATGGAAG CCGTTGACTC CAATTCTCGA GTTAAGCTAG	2760
ACTTGTCCTAA GTGATTCTCA ACTTGAACCT CAATCCAGC AATTTCTAAC ATCTTTTCA	2820
CAGTCTCTAG TTCGGATGTC AAAGTTCTAG ACTTAAGATT TTCCACAATG GTTCGCACCT	2880
CATTCTGGA tCCTTGCTGA TCTGGTGAAT TTCTTTAAT TCCTTTTCCA CCTGTGGATA	2940
AGCCTCCATC TGAAATAACT GCAAGGCTAA ATCTGTCTTG AACTCAGCA TAGCAAAGGT	3000
ATGTCCCAGA CTATCATGCA AATCCTGACC GATACGACTA CGTTCATTTT CAGCAAAGCAA	3060
TAGATTTATC TGAGCATTTT GCTTGACCTG AGCTTCTTTC AAATCCTCGA CAATACGAAT	3120
CCGAACCAAT CCAAAAGTCA TTAAATCGAC AAAAGTAAGA ATTACAAGTA GATAGAATAG	3180
AAACTCAACT TCGATTCTCT GAAAAATCAA CAGTTGCCCC ACAACAAGGA CTTGAGCAAG	3240
AAGAAAAGTC CAGACATGTA AAGACTTTAA ACTACGTACG CTGAAATGAT AACTTAAGAG	3300
ATTGGATAGG AAAAAGAAA ACCAGATATA ATTAACAGCA ACAAAGGCAG TATTTCCAAC	3360
TACATAAGTC AGCATGAGGC CCCAATATAG CCAAGATAGG CGCTGGCTCT TAGTTGTAA	3420
AACACCCAAA TATGCCACTA CAAATAGAAT ATCAATCAAT AAATGCCAGG CAGAAAGCCA	3480
CCCAGTCACT ACAGACAGGA TGGGGAAAAT CATAAAATT AAAGTATCC AAAACATATA	3540
ATGTATTCTT TTCAGTCTTT CAAGCATTA GCAATCTCCT TATGACCTTG AAGGTAAATG	3600
GTCAAACCAA ACAAACACTAC TGA AAAACA AGTAATAAA CTGTGGCTGA TAGATTGATG	3660
CCACCCTCAT TTAAGAAGGT CTTGAGCAAC TCCATCAACT GATAGGTCGG GAGACACTTA	3720
CCTACTACTT GCATCCAGTC TGGAAATAAA GAGATAGGCA TCCAGAGTCC ACCTAAAACA	3780
GCCAACCCTA GATAAAGAAG ATTGCCACG ACAGACATCA ACTGACTAGT TGGTAAGAGA	3840

1172

GTCAAGGTCA AACCAAGCGC TACGAAGGCA ATACTTCCTA CTATCAGCAA AAGTGCAGCC	3900
CCAATCCAAT TTCCAAGAGA CATGTCCACA CCTCTTACAA AATGCCCAAC TGAGAAAACC	3960
ACCAAGATTG AAACCAATA ATCAACCAGC ATACTTGTTA TCTTTGATAG ATAATATTCT	4020
ACCATATTTA CAGGGCTATG ACGCAATGTT TTCTGCCAGT TGTTGATCTT GTCGGTATGT	4080
AAAACAACCTG GGAATGAGAA GATAGCTGTT GACATCATGG AAAATGCAGT CATGGAGATA	4140
AGATAATCAC GCATAAAATT CGCGAGTTCA CCTGGTGTGT CCTGATAGAT ACCAGAAAAA	4200
AATAAATAGA AAGCCGTCGG CATCCCTACT GACAATAGAT AATAGATCAA TTGTCGTTTG	4260
GTCAATAAAA ATTCTATCTT ACTAAGTGCT AGCCATCGTT TCATCTTAGT TATCTCCCTT	4320
CTGCGTTTCT TCAAAGATTG TATCCAACAA ACTACGATTA TTAACCTCAA TTTCTTGAT	4380
GCCACATCCT GCTTGAACATA ACAGTTCCCA AAAAGCATCT GCTTCGCGTG TGACTACTTG	4440
TAGAGCATCC TGTTTTTG TG ACCAGTTTTT AACCAAGTTA GACTGCTCAA TGACTTCCTT	4500
GTATGCCAGA GGAAGGATAA AATGCTTTTC AATFCCCTCA CTACGCATAG CTAGAGGCGT	4560
CGTATCACGA ATCAACTCTC CCTTATTTAA AACCAAAATC CGGTCAGCCG TATGCTCTAC	4620
CTCTTCAATA TAATGAGACG AATAGAGAAT CGTGACTCCT TGCGCTTTTA GGTCCCGAAC	4680
GATTTCCCAA AAGCGTTGAC GAGTTGAAGT ATCCATGGCA GCAGTTGGTT CATCTAAAAA	4740
GACAAGCTTT GGTGCGCCAA TCAAGGTCAA GACAAAAGAG AAGAGACGCT TTTGCCCCGC	4800
TGACAATTTT TCTGCGAATT GCTCTTTTGT TTGCTGGTCA AACTGCAATA GTTGATCGAT	4860
TTCTGATCG CTCAAGGAAT TTGGATAGAT ACGTTGAAAG AAAGCAATCA ACTCTTTGAC	4920
CTTTAATTTT TGAACGATGA CATTTTCTTG AGGCAGATAA CCTCTAATAT AGTCTAACTG	4980
AGAACTCGTC ACTGACAAGC CTTGGATGGA TACTTGACCG CTTGTGACCA GTTTATCTCC	5040
AAGCAGACAG TCCAAGAGTG TGGTCTFCCC AGCACCATTG GGCCCAATCA AGGCGACGCA	5100
TTACCTTCA GCTACCTCAA AGGAAATACC CTTCAAAATA GCCTTGCCCT TGATGTTTTT	5160
ATTTAGGCTT TCTACCTTAA TCATATTCAT GATATTCTCC TTTCAACCAC TCCATTCTCA	5220
TAAGGAAAAC GACGAAAATC ATAAATCCAA ACCCCAAAGC ACCACGAATG AATTGGCGAA	5280
gCAAGGTTTG GTCAAACCAA CCTGTAAACA TTTCCACTAA CCATACCAAG AGTGACAGGC	5340
CGATAAAGAA ATAGATGATC CCTCTCTTCA TTCCTCAAGC TCCTTTTTCAT CATCTCCGAC	5400
TAATTTCAAA CCTTCTCTAA CAAGCCAAGA CATCATTTCCA AAGCCAGCAA AGAGCTCCCA	5460
AGGAAATGA TAGAACTCT CATCCAATCC CGAAAACATG AGTTAGGTCA TAACTCCTGC	5520
TACTACTAAA CTCACTGCGA TAATCATTTT ATTTCTCATC TCTTCTTCCT CCATTTTATA	5580
CTACAATTAT AGTCTTTTGA AATCAGAGGA GACAGAAGCT TCTGTCACTA GAAAATATGA	5640

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CAAAATGTCAT AAAAAATTCT GTTCAAAACA AGCAAGATAC ACTATACAAT AAAACACAAT	5700
TAGAAAAATC TAAGGCAACT TCCTCAAAAG AGATATCAAA CCCAATTAC ACCATAATGT	5760
AAACTAATAC TTATTTAAAA TCAAAAAGAG TAGAAATTTT TATCAGACAA ACACATATAT	5820
AGTGATTGA ATCTATAACA GTAGGCCTTA AATACTAAAA TATTTCTATA AATTAATTTA	5880
ACTTTCCTGA TAGAGCTGTT CATATCTTAT TTCAATTCTC TAAATTATAC GTTGAACAAA	5940
ACCCCTCTAT TTCTTCTTA AAGATTTATA AGAGTTATAA AATCTGTTAA ATTTCAATGT	6000
GTATACCTAA ACTACGGTAT TTATGAAAA GACTGGAGAC AAAAAGTATA CGCTGCCAAA	6060
ATGAATTACT GAAAATCAAA AAAGAGAGAA CCAAACTGAT TCCCTCTTAA TGTATATAAT	6120
ATCTAGTTTT AAAAATACAC ACTCACATAT CTCTGTAATG AATCGGGAAG ACAGGATTCG	6180
AACCTGCGAC ACCTTGGTCC CAAACCAAGC ACTCTACCAA GCTGAGCTAC TTCCCGAGTT	6240
AAATAGAAAA ATGCACCCTA GAGGAGTCGA ACCTCTAACC GCCTGATTCG TAGTCAGGTA	6300
CTCTATCCAG TTGAGCTAAG GGTGCTCCAT ATTATGCCGA GGACCGGAAT CGAACCGGTA	6360
CGATCGTTAC CAATCGCAGG ATTTTAAGTC CTGTGCGTCT GCCAGTTCGG CCACCCCGGC	6420
CTCTCTAAGC GAACGACGGG ATTCGAACCC GCGACCCCCA CCTTGGCAAG GTGGTGTCT	6480
ACCACTGAAC TACGTTGCA CTGTTTTCTT CTATCTAAAA ATGCCGGCTA CATGACTTGA	6540
ACACGCGACC CTCTGATTAC AATCAGATG CTCTACCAAC TGAGCTAAGC CGGCTCATTT	6600
GTTATATCTT AATGCGGGT AAGGGAATTG AACCCCCACG CCGTTAAGCG CCAGATCCTA	6660
AATCTGGTGC GTCTGCCAAT TCCGCCAAAC CCGCATATAT GACCCGTACT GGGCTCGAAC	6720
CAGTGACCCA TTGATTAAAA GTCAATTGCT CTACCAACTG AGCTAACGAG TCTAAAATAA	6780
CTTGGCTTAC CTTAAACGGT CCCGACGGGA ATCGAACCCG CGATCTCGCC GTGACAAGGC	6840
GACGTG	6846

(2) INFORMATION FOR SEQ ID NO: 199:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2911 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 199:

GAATTCATTT TAAATAAAGA TACGGGAGAG GTAAGTGAAT TAAAACCTCA TAGGGTAACT	60
GTGACCATTG AAAATGGAAA AGAAATGAGT TCAACGATAG TGTCGGAAGA AGATTTTATT	120

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TTACCTGTTT ATAAGGTGA ATTAGAAAA GGATACCAAT TTGATGGTTG GGAAATTTCT	180
GGTTTCGAAG GTAAAAAGA CGCTGGCTAT GTTATTAATC TATCAAAAGA TACCTTTATA	240
AAACCTGTAT TCAAGAAAA AGAGGAGAAA AAGGAGGAAG AAAATAAACC TACTTTTGAT	300
GTATCGAAAA AGAAAGATA CCCACAAGTA AACCATAGTC AATTAAATGA AAGTCACAGA	360
AAAGAGGATT TACAAAGAGA AGAGCATTCA CAAAAATCTG ATTCAACTAA GGATGTTACA	420
GCTACAGTTC TTGATAAAAA CAATATCAGT AGTAAATCAA CTAATAACAA TCCTAATAAG	480
TTGCCAAAA CTGGAACAGC AAGCGGAGCC CAGACACTAT TAGCTGCCGG AATAATGTTT	540
ATAGTAGGAA TTTTCTTGG ATTGAAGAAA AAAAATCAAG ATTAAGATAA AAGCTATAGA	600
AAAAATGGT TTATGTACTG AGATTAGATA GTGAGGTGAT GACATAGTTT TGTGAAAATA	660
GCCATTTATA ACTCAATTAT TTAGTTTACT TTACTTTACT AGTGATACTA TTTGGAGTTA	720
TTAATGGACT TAGTTTATAT AACTAATGAA TTGATTGAAA GGGTTAGTAT TGACAATATT	780
GGTCATATTG ACTAGAAAAT AGAGTCTATC AAAATTTAAA GGCTAATAGA GGTGATGAGA	840
CAATTCGGC TCTTTGTCAA CTGTAGTGGG TTGAAGTCAG CTAAGCTCGA GAAAGGACAA	900
ATTTTGTCTT TCTTTTTTGG ATATTTCAGAG CGATAAAAA CCGTTTTTTG AAGTTTCAA	960
AGTTTCGAAA ACCAAAGGCA TTGCGCTTGA TAAGTTTGAT GAGATTATTG GTCGCTTCCA	1020
GTTTGGCATT AGAATAGTGT AGTTGAAGGG CATTGACAAT CTTCTCTTTA TCTTTGAGGA	1080
AGGTTTTAGA GGATGAACCT GATTTCAGATT GTCCTCAATG AGTCCGAAAA ATTTGTCAGG	1140
CTCCTTATTC TGAAGTGAA AAAGCAAGAG TTGATAGAGA TTATAGTGGT GTTTCAGTC	1200
TTCTGAATAG CTCAAAAGTT TATCTATAGT AGATTGAAAC TAGAATAGTA CACCTCTGCT	1260
TCTAAACAT TGTTAGAAAT CGATTGACT GTCCTGAATG ATTTGTCCTG TTATTATTTT	1320
ATTTTACTAT AAATCCACGT TTACGAATCT CTTCCACAC TTGTTCAATG GGGTTCATCT	1380
CTGGTGTGTA TGGAGGAATA AATGCAAAAC CAATATTAGT CGGAATCTTT AAGGTACTTG	1440
ATTTATGCCA TATAGCATTG TCCATAACGA GTAAAAGATA ATCATCTGGA TAAGCTTGTG	1500
AAAGCTCCTA TTCCTAAAGC CCCTTTATAA CCTCTTGCGA GAGAGACTAT TGACTCAGCC	1560
CTTACTTCAT GCGGATGAAA CTTCTTATCG GGTTCCTAGAG AGTCATAGCC ATCTGACCTA	1620
CTATTGGACC TTTTGTCTG GGAAAGTTGA GAATCAAGCA ATCACGCTGT ACCATCATGA	1680
TCAGAGTCGG AGTGGTTCGG TAGTACAAGA ATTCCTAGGA GATTATTCTG GCTATGTTCA	1740
TTGTGATATG TTGCGGCAGT AACTTAGGAC TTTAGTCCTC TAGTTCTGCC TATGCGATAG	1800
CAGTCCAAGG TTTAGGAGCA AGGCGACGCT AAGCTTGGTA AACTGCGAAC CGCTAGAAGC	1860
TTATCGTCAA CTGGAAGAAG CTGAACCTGT TGGATGTTGG GCGCATGTGA GAAGGAAATT	1920

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TTTTGAAGCG ACCCCCAAGC AAGCAGATAA ATCATCCTTA GGAGCTAAAG GTTTAGCTTA	1980
TTGTGATCAG TTATTTTCCT TGGAAAKAGA CTGGGAGGCT TTGCCAGCTG ATGAACGACT	2040
ACAGAAACGT CAAGAACATC TCCAGCCCCT AATGGAAGAC TTCTTTGCTT GGTGCCGCCG	2100
TCAGTCAGTT TTAGCAGGTT CAAACTAGG AAGGGCAATT GAATACAGCC TCAAGTATGA	2160
AGAAACCTTT AAGACTATTT TGAAAGACGG ACATCTGGTC CTTTCCAATA ATCTAGCTGA	2220
ACGCGCCATT AAATCATTGG TTATGGGACG GAGTAAAAGA GTCCAGTGGA CTCTTTTAGC	2280
CTGAGCTCAG TTTAAAAAG CGAGGGTGGT TATTTTCTCA AAGTTTGTAA GGAGCTAAAG	2340
CAAGAGCTAT TGTATGAGC TTGTTGGAAA CAGCTAAACG TCATCAATTA TAGTGCCTTG	2400
AATCTATAAC AGTACGCATC GACTGCTAAA ACATTTCTAT AAATCAATTT TCCTTTCTTA	2460
ATCGATTGTG TCATATCTTA TTTCAATCCA TTATAAATAG CGAGAAATAT CTATCCTATC	2520
TTCTAGAATG TCTTCCAAAC GAGGAACTC TCGTAAACAA AGAGTTTTA GAGTTTATT	2580
TACCATGGAC TAAAGTTGTA CAAGAAAAGT GCAAATAAGA AATCTCCAGA TTAGGAACTA	2640
TCCGTGAGTT CACTAATCTG GAGATTTTTC AATAGATCG TTATGGGCG GTTACGATAT	2700
GATCACTACT TCGTCAGTCT TATCTACAAC CTCAAAACAG TGTTTTGAGC AACCTGCGAC	2760
TAGCTTCCTA GTTTACTCTT TGATTTTCAT TGAATATTAG AACAGAAAAA ATGCTTGGAG	2820
TATTTGTTTG TGTGTTTATT TTTATATAAC AAATATAAA CAAATAAAA ATATAAAAAA	2880
AGAGACAAAA AAGAACAGAA AGTAATTGAC A	2911

(2) INFORMATION FOR SEQ ID NO: 200:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6854 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 200:

GAAAATAAGT CTTGACAGAA AGCGCTATCA ATGATAGAAT GAATTCAGAT AAAAAGATTT	60
ATTTTAAAA CAAAAATGAA ACGTTTCAA AAAAGAAATA AAGAGACAGC GCCAAGCGCT	120
ATCTTTTCTA GAAAAAATG AAACGTTTCA AAAAAGGAGG TTGCTATGAA TAGCAAAGCG	180
AAGCAAGTTT CTCTTTGGA AAGAATCAAG AAACAAAAAC TCTTGTTATT GATGACTGTC	240
CCCGGTTTAG TTTTAACCTT TATCTTTAAA TACATCCCTA TGTATGGGGT TTTAATCGCA	300
TTTAAAGATT ACAATCCTTT AAAAGGAATT TTAGGGAGTG ATTGGATTGG TTTTCTGAG	360

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TTTACAAAAT TCATATCCTC TCCCAACTTT GGTATCTTGT TAGCCAACAC ATTAAATTA	420
AGTATCTATG GTTTATTGCT TGGCTTTTFA CCACCAATCA TTCTCGCGAT TATGCTCAAT	480
CAACTCTTGA GTGAAAAAGT CAAAAAACGA ATTCAGCTCA TTTTATACGC ACCAAACTTT	540
ATCTCAGTCG TTGTTATTGT CGGTATGATT TTCTCTTCT TTTCACTGGG AGGACCAATC	600
AACAATTTTC TTTCTATGTT TGAATGAAG GCTGACTTCT TGACAAATCC AGACTTCTTT	660
AGACCTTTAT ACATCTTTAG TGGTATCTGG CAAGGAATGG GCTGGGCTTC AACGCTCTAC	720
ACGGCAACAT TGGTAAATGT AGATCCAGCC TTAGTAGAAG CAGCCCGACT GGATGGAGCC	780
AATATCTTCC AACGAATCTG GCACATTGAT ATTCCAGCTC TTAAGCCTAT TATGGTTATC	840
CAATTTGTTT TAGCTGCAGG TGAATTATG AATGTCGGAT ATGAAAAAGC ATTCTTGATG	900
CAGACATCGT TAAATTTGCC AACTTCTGAA ATTATCTCGA CATATGTCTA TAAAGTTGGT	960
CTTGATCAG GAGACTATTC TTAACAACA GCGGTGGTT TGTTAATGC AGTGATTAAC	1020
GTAGTATTGC TTGTTGCAGT TAACCAATC GTTAAACGCA TGAATAATGG TGAAGGAATT	1080
TAAGGAGGAA AGTATGAAAA ATTCGATTAT GGATACAAAA TTTGATAGAC GTATCTTACT	1140
CTTAAATAAA ATCATTATTG TCTTTATCGT TTTGATGACT TTGCTTCCTT TACTTTATAT	1200
CGTCGTAGCA TCCTTTATGG ATCCTAAGGT TCTGGTTAGT AGAGGGATTA GCTTTAATCC	1260
AGCCGATTGG ACTGTAGAAG GTTACCAGCG TGTATTCAGT GACCAATCTA TTCTAAGAGG	1320
TTTTATCAAT TCTCTACTAT ACTCTTTTGG ATTTGCAGCT TTAACAGTCT TGCTATCTGT	1380
GTTTACAGCT TATCCTCTTT CTAAGAAAGA CTTGGTTGGA CGTCGTTGGA TTAACACTT	1440
CTTGATTGTA ACTATGTTCT TTGGTGGTGG TTTAGTCCCA ACTTACTTGC TCGTAAAAGA	1500
ATTGGGAATG CTCAATACTC CATGGGCTAT CATTGTTCCA GGTGCTGTTA ACGTTTGGAA	1560
TATTATCTTT GCTAGGGCCT ATTTCCAAGG ATTGCCCTGAA GAATTAGTTG AAGCTGCTGT	1620
CATTGATGGT GCAAATGATT TACAGATTTT CTTCAAAATC ATGCTTCCTC TTGCAAAACC	1680
AATTATGTTT GTTCTCTTCC TTTATGCTTT TGTAGGACAG TGGAACCTAT ACTTTGATGC	1740
AATGATTTAT ATCAAGGATC CAACTTGGA ACCATTGCAA CTTGTACTTC GTAAAAATCT	1800
CATTCAGAGC CAACCAGGTC AAGACATGAT TGGAGCACAA GCGGCTATGA ATGAAATGAA	1860
ACGTTTAGCT GAATTGATTA AATACGCAAC TATTGTCATT TCCAGCTTGC CATTGATTGT	1920
TATGTATCCA TTCTTCCAAA AATACTTTGA TAAAGGAATT ATGGCTGGTT CACTTAAAGG	1980
ATAAAAAAAG AAAAAATAAA AGGAGTTTTC TCATGAAATT CAAAACATTC TCAAAATCAG	2040
CAGTTTGTGT GACAGCTAGT TTAGCAGTAC TTGCAGCCTG TGGCTCAAAA AATACAGCTT	2100
CAAGTCCAGA TTATAAGTTG GAAGGTGTAA CATTCCCGCT TCAAGAAAAG AAAACATTGA	2160

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AGTTTATGAC AGCCAGTTCA CCGTTATCTC CTAAGACCC AAATGAAAAG TTAATTTTGC	2220
AACGTTTGGG GAAGGAAACT GGCCTTCATA TTGACTGGAC CAACTACCAA TCCGACTTTG	2280
CAGAAAAACG TAACCTGGAT ATTTCTAGTG GTGATTTACC AGATGCTATC CACAACGACG	2340
GAGCTTCAGA TGTGGACTTG ATGAACTGGG CTAAGAAAGG TGTTATTATT CCAGTTGAAG	2400
ATTTGATTGA TAAATACATG CCAATCTTA AGAAATTTT GGATGAGAAA CCAGAGTACA	2460
AGGCCTTGAT GACAGCACCT GATGGGCACA TTTACTCATT TCCATGGATT GAAGAGCTTG	2520
GAGATGGTAA AGAGTCTATT CACAGTGTCA ACGATATGGC TTGGATTAAAC AAAGATTGGC	2580
TTAAGAAACT TGGTCTTGAA ATGCCAAAAA CTAAGTATGA TTTGATTAAA GTCCTAGAAG	2640
CTTTCAAAAA CGGGGATCCA AATGGAAATG GAGAGGCTGA TGAAATTCCA TTTTCATTTA	2700
TTAGTGGTAA CGGAAACGAA GATTTTAAAT TCCTATTTCG TGCATTTGGT ATAGGGGATA	2760
ACGATGATCA TTTAGTAGTA GGAAATGATG GCAAAGTTGA CTTACACGCA GATAACGATA	2820
ACTATAAAGA AGGTGTCAAA TTTATCCGTC AATTGCAAGA AAAAGGCCTG ATTGATAAAG	2880
AAGCTTTTCA ACATGATTGG AATAGTTACA TTGCTAAAGG TCATGATCAG AAATTTGGTG	2940
TTTACTTTAC ATGGGATAAG AATAATGTTA CTGGAAGTAA CGAAAGTTAT GATGTTTAC	3000
CAGTACTTGC TGGACCAAGT GGTCAAAAC ACGTAGCTCG TACAAACGGT ATGGGATTTG	3060
CACGTGACAA GATGGTTATT ACCAGTGTAA ACAAAACCT AGAATTGACA GCTAAATGGA	3120
TTGATGCACA ATACGCTCCA CTCCAATCTG TGCAAAATAA CTGGGGAAGT TACGGAGATG	3180
ACAAACAACA AAACATCTTT GAATTGGATC AAGCGTCAA TAGTCTAAAA CACTTACCAC	3240
TAAACGGAAC TGCACCAGCA GAACTTCGTC AAAAGACTGA AGTAGGAGGA CCACTAGCTA	3300
TCCTAGATTC ATACTATGGT AAAGTAACAA CCATGCCTGA TGATGCCAAA TGGCGTTTGG	3360
ATCTTATCAA AGAATATTAT GTTCCTTACA TGAGCAATGT CAATAACTAT CCAAGAGTCT	3420
TTATGACACA GGAAGATTTG GACAAGATTG CCCATATCGA AGCAGATATG AATGACTATA	3480
TCTACCGTAA ACGTGCTGAA TGGATTGTAA ATGGCAATAT TGATACTGAG TGGGATGATT	3540
ACAAGAAAGA ACTTGAAAAA TACGGACTTT CTGATTACCT CGCTATTAAA CAAAATACT	3600
ACGACCAATA CCAAGCAAAC AAAAAGTAGA GGTGATTAT GGGAGATAAG AAATACACAG	3660
TAGAAAAAGC CAATCGTTTT ATAGCAGAAA ATAAACATCT CGTTAATACT CAATATAAGC	3720
CTGAAGAACA TTTTTCAGCT GAGATTGGTT GGATCAATGA TCCAAATGGA TTTGTCTATT	3780
TTCTGGGAGA ATACCATCTC TTTTATCAAT TCTATCCATA TGATAGTGTT TGGGGGCCTA	3840
TGCACTGGGG ACATGCTAAA AGTAAGGACT TGGTGACTTG GGAGCACTTG CCAGTGGCAC	3900

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TTGCTCCTGA CCAAGATTAT GACCGAAATG GTTGTTCCTC AGGCTCTGCC ATTGTCAAGG	3960
ATGATCGCCT CTGGCTCATG TACACTGGAC ATATCGAAGA AGAAACCGGT GTCCGCCAAG	4020
TGCAAAATAT GGTATTTTCA GATGACGGGA TTCACCTTGA AAAGATTTC CAAAATCCAG	4080
TTGCAACTGG ATCAGACTTA CCAGATGAGT TGATTGCTGC TGATTCCGT GATCCAAAAC	4140
TCTTTGAAAA AGATGGACGC TATTACTCCG TAGTAGCTGC CAAACACAAG GATAATGTGG	4200
GCTGTATCGT TCTACTAGGG TCCGATAACC TAGTAGAATG GCAGTTCGAA TCCATCTTTT	4260
TAAAAGGGGG AGAACACCAA GGTTCCTATGT GGAATGCCC AGATTACTTC GAGTTAGATG	4320
GGAAAGATTG CCTTATTATG TCACCCATGC GTTATCAGCG TGAGGGGAGC TCATATCATA	4380
ACATCAACTC ATCGCTTTTG TTCACGGGTA AGGTAGATTG GAGAGAAAA CGTTTTATCC	4440
CAGAATCAGT TCAAGAAATG GATCATGGCC AAGACTTCTA TGCGCCTCAA ACATTGTTGG	4500
ACGATCAAAA TCGTCGTATC CTGATTGCTT GGATGCAGAC ATGGGGGCGT ACCCTTCCAA	4560
CCCATGACCA AGAACACAAG TGGGCATGTG CCATGACTCT ACCTAGAATT CTAAGATTGG	4620
AAGATGGCAA ACTAAGACAA TTCCCTGTTA AAAAAGGCCA ATATCAAATC CAAATAGATA	4680
AAGATTGTCA TTACCACTTA GGAAATGATA TAGATTATCT TGAATTTGGT TATGACAGTA	4740
ATGCGCAGCA AGTTTACATT GATCGTAGCC ATCTTATTCA AAAAATCTA GGTGAAGAAG	4800
AACAGGACAC TAGTCGACGG TATGTAGATA TTGAAGCTAA AGAATTGGAA GTTGTCTAG	4860
ATAAAAATTC CATCGAGATT TTTGTCAATC AAGGTGAAGC AAGCTTGACT GCAACTTATT	4920
ACTTAACGGT GCCAGCTGAG CTATCAGGAA TTGATTAAAA ATTAAGTTAT TTCTCCTAAA	4980
GAAAAGTTC TCTTTCTAAA ATAGTGGAAA GAGGACTTTT TGTGTTTTGG GTATATAAGC	5040
TTAGTTTATG GTATTTGTAA AATTGGTGTG GGATTATGAT TTAAGCTAGT TTTCTAAAGA	5100
ATTTGAAAAA AATTTTATTT AAGCAAAAAA ACCTTGGTTC CAAGGCTTTT CCTGTTGTAT	5160
TTAGATGCCC CCTACAGGGA TTGTAGGAGA TATGTTGCTT AGATGTTCTT GATTTTCTGG	5220
TGTTTTGTAA CGTTTAAATG AGTTTTTTGA GTTTGTTGGT GGGGCGTTGC CCGGCAATTG	5280
CCCGACTTAT TGCTTGAAAA AGAATTTAAA ATATAGTATA GTTAATTATA GATTAACACT	5340
TGCTTGGAGG AACTGATGAA GAACAATGAA AGATTAGGTA TTAAATTAAG TAGAGATAGC	5400
GTTTTAGGAT TGAGGGAAGT TAGAAGGCTT TATTTAGGCA GTTCAGATAT CCCAGTTTCT	5460
GATGGCTATG TGATTGAAGT TGCTTATAAC CAGATATCAC ATGAGATTGA TATTATGAT	5520
TGGGTAGAGT TGAACAAGTC AAAAATTAAG ATAAGTGAAA TTAGTGAAAG CGTGGATATA	5580
GATGCCACTA GCTTGAGAAC AACTTTGACT TTAGACACAT TAGTATATGA AGGTATGAGA	5640
GATATACAGT TAAAGTTGAG AGAGCTTACA AAGGGGAGAG TATTCCTTTC ATTTGTAGTG	5700

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AAGTTAGTTT TGTTTGCTTC TATTTTAAAG AAAAAAGATT TACTAGAAAA ATTTCAAGAA 5760
AAGTGTTAAT CAAGTATTGA CACTTTATCT GGATTTCGGT ATAATATGCT TAGAAAGGAA 5820
TCTTTCTAAA TTTTTCCTGT CCTTATGTGT TAATCAAAGA CGAATACAAA AACATATTTT 5880
TTTACTCTAA AAAGTGTTAA TCAATGATGT ATTTGTTAGA GAGGTAGATA AATGGAATTG 5940
AGAGCACCAC CAGTTATAAT AGTATAAAAC GTATAATAAA AATATTTTAA CTTGAATTAT 6000
AGAAAAGGAG AAACAAATCA TGAACAAAA ACAACCGATT GTTCTTAGAA CGAAACAACA 6060
TACATTTGAA GAGCTTATTC AAGACCAAAA GTTAGAAAGA TTGGCTAAGT TGTCGCCCGA 6120
TTTGGTTGGA AGGTATGGTT TTACTGCTAG CTGTGCGTCT TCATTTGCGA ACTTGATTAA 6180
AGAAGCGTAT GGGGGTAAAA ATCTAAACGT AGTTTATGCG AGTCGGATGT TGGCTCTCTG 6240
GAATATTGCT TGCAGTTGTT ATCATAAGGC TGATGGGTAT TCTTTAGCAG ATGCGCTTTT 6300
TAGTGATAAA AAAATTGTGC TAGATTCTTA CTATTACCAC AAGAATACCT CTAATACCAT 6360
AACTAGTGAT GTGATAAAG ATGTTTACGA TAATTATAAT AATTATATGG TTTTAACTCG 6420
AGAAGCGACA CCTGAATACA TTATGTGTGT ACAAACCTGAA ATGCCAAAAG ATTCAGATTT 6480
ATATTTTAT ATTAGAGAAG TTCTGGGATT ATCGTTTGTG ACCATGCATT ATGCATTTT 6540
AGTCAAGGTT CTTCAGGAG CGCTTGCTAG AAAATATAAG CCATATCGAA ATTGAATTAT 6600
TTAAATTTAT ACTCTTCGAA AATCAAATTC AAACCAAGTC AGCTTCGCCT TGCTGTACTC 6660
AAGTGCTGTC TGTGGCTAGC TTCTTAGTTT GCTTTTGTAT TTTTATTGAG TATTACTCTT 6720
ATGGTAGTTA TTTATGTCAT AATAATATTG ATTTGGGAGT TATAGCGAAA ATTTTAGGTT 6780
CTATAATATT TGTAGTGGGT AAACCACTAT AGATATTATG GAGCCTATTT ATTGTAGAAA 6840
AAAGTCCCAT ATGA 6854

(2) INFORMATION FOR SEQ ID NO: 201:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3895 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 201:

TCCTTGCTAA GTTTATACTC AATGAAAATC AAAGAACAAA CTAGGAAGCT AGCCACAGGT 60
TGCTCAAAGC ACCGCTTTGA GGTGTCAGAT AAAACTGACA CGTTTGAAG AGATTTTCGA 120
AGAGTATTAA TTTACATAAA TAGCCAGTGT TTGATAGGTT TTGAGTAGAA TTTTCTCAGA 180

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CACCTCTGCA	TCTTCATAGT	TTGATATCAA	AATCTGTCCA	TTTGGGTAGA	CTGCTGGCAA 240
GTCGATTTCa	CTTCTTTAGC	ATAAAAGTTA	TTGAGCACTA	GTAACCTTTG	ATCCTCAAAC 300
TGGCGTTCAA	AAGCGTAGAC	TTGTTTGCTA	TCTTCAAAGG	CTGGTTTGTA	ACTTCCTTCT 360
GAAATGATTG	GCATTTCCTT	ACGCATCGAA	TCAAGTCTTG	ATAGAAGGTA	AAAATCGGAC 420
CCTGGATTTC	ATTTTCTACA	TTGATGTATT	TATAGGATTT	ACCAGCTTTC	AACCAAGGAG 480
TGCCTGTGTA	AAATCCTGCA	TTTCCGAAG	CATCCCACCTG	CATGGGAATG	CGTGAATTAT 540
CACGCGACTT	AGCTTGAATA	ATCTGGAAGG	CTTCTTGCTG	ACTCTTTCCT	TCTTCTAAGA 600
GCATCTGATA	GGCATTAAAG	GATTCGACAT	CCACATAATC	AGCCATAGAA	TCATAGTCTG 660
GGTCAATCAT	CCCATTTC	TCACCCATGT	AGATATAAGG	TGTCCACGT	GACAGGTGAA 720
TGCTGGCTGC	TAGCATGGTG	GCTCCTTCCT	TGCGGAAGT	TTGAATATCG	ACAAAACGGT 780
TCAAGGCACG	TGGTTGATCG	TGATTATTCC	AAAAGAGGGC	ACTCCAACCG	TCTTTATCAC 840
TCATTTCTTT	ACCCCACTA	TGGTAAAGAC	TCTTCAACTC	TTCAAAATCA	AAGGGAGCCA 900
AGGTCCACTT	TTGTCCATCC	TTATAGTCCA	CCTTGAGGTG	ATGAAAATTA	AAGGTCATGG 960
ATAATTCCTG	ACGATCAGGC	GACGAATAGA	GGACACAGTT	TTCCATGGTG	GTAGAAGACA 1020
TTTCCCCAAC	TGTCATAAAG	CTATCGTCGG	ATCCAAAAGT	GGCTTGTTTC	ATCATACGCA 1080
AATAGTTATG	AACGATGGGT	TTGTCTGTAT	AAGCTGGCTT	CCCTTCATTT	TCAGGACAGT 1140
CCACTGAAAC	CTCGTCCTTA	CCGATCAAAT	TGATCACATC	AAATCGGAAA	CCTTTGACAC 1200
CCTTGTCGCG	CCAGAAATTA	ACAACCTTGA	AAAGCTCCTT	ACGGACATTG	GAATTGCGCC 1260
AGTTAAGGTC	AGCCTGGGTC	TCATCAAATA	GGTGAAGATA	GTATTTCCCA	GTATCCCCGA 1320
AAGGCGTCCA	TGCAGAACCA	CCAAACTTAG	ACTGCCAATC	TGTTGGTTGG	TCTTGATGA 1380
AGAAAAAGTC	TTGATAATAC	TTATCACCAG	CTAGGGCTTT	CTGAAACCAT	TCATGCTCTG 1440
TCGAACAATG	ATTAAGTACC	ATGTCCAGCA	TAAAGTCAAT	CTTGTGCTCT	TTACCGACAC 1500
ACACCATTTT	CTCAAAATCA	GCCATATCAC	CAAAAAGAGG	ATCCACTGCC	ATATAATCTG 1560
AAATATCGTA	ACCATTATCC	CGTTGAGGGC	TTGGATAGAA	TGGATTGAGC	CAGACCATAT 1620
CCACACCTAG	TTTGGCTAAA	TAGGGAATTT	TTTCGATAAT	CCCACGGAAA	TCCCCAATAC 1680
CGTTTTCAGT	GGTGTCTTTG	TAAGATTTTG	GATAGATTTG	ATAGACTACT	TTTCCTTTAT 1740
CAAGTGTCT	CTGTTTCTCC	TTTCTGATA	AAAGGGAGGA	AGCAGTCTTC	CGTCCCTATT 1800
TGTGCTATTT	CAATTATACT	CAATGAAAAT	CAAAGAACAA	ACTAGGAAGC	TAGCCACAGG 1860
TTGCTCAAAA	CACTATTTTG	AGGTTGCAGA	TAGAGCTGAC	GTGGTTTGAA	GAGATTTTCG 1920
AAGAGTATTA	GATTCGTGTA	GCGACCATGA	GAGATGCTCC	AGCTTGGATC	GTTGTGCGAT 1980

1181

AAGTTCGGG AATAGTCGCT GTATAAGCAT CTTGGTTGGT GATGATAACA GGAGTTTCTG	2040
TCACCAGACC TGCAGCCTTA ATGACATCCA TATCAAAACG AATCAGTTGC TGACCAACTG	2100
TAACGTGATC TCCTTGGACT ACAAGACTTT CAAAACCTTT GCCATCAAGA CCTACTGTAT	2160
CCATACCGAT GTGGATGAGC AATTCAACTC CCTCGTCAGA GACAATGCCG ATGGCATGCT	2220
TGGTAGGGAA AAGAACCGTC ACTGTCCCAT TAAGTGGAGA GGTCAACTCA CCTTGGCTTG	2280
GTTCAATGAC TAGACCTTGC CCCATGACAC CTGATGCAAA AATAGGATCC GTCGCTTGAC	2340
TCAATTCTTT CACTTGGCCA GTTAGTGGG TGATAATTTC TACCGAAGTA AGTTCTACTG	2400
GTTTCATGGT CACAAATTCT GCTTCTTCTT GAGCAACGAA TTCTGCCTGC AAGTTCGTAT	2460
CGCCCTCTGT TTTGTAAAG AGACCAGCCT TCGGAAGAA GAAAGTCAAG AGCATTGGAA	2520
CAACAATCGC AACTAGCATA GTTCTGCAA ATGGCAGCAT GTATTGAGGT TGAATAGAGA	2580
GAATACCTGG CAAACCACCG ATACCAATAG AAGCCGCAGT TACATTAAAA GTAACGGATA	2640
ACATGCCTGC AAGGGCTGAA CCAGTCATCC CAGCAACAAA TGGATAAATA TATTTTACGT	2700
TAACCCCAAA AAGAGCTGGT TCTGTAACAC CGAGATAGGC TGAATGGTT GCAGGAAGTG	2760
AAACCTGAGC CTCACGCTCA TCATGGCGAT GCATGAAATA ATAGGCAAAAC ACGGCTGAGC	2820
CTTGAGCAAT ATTAGAAAGA GCAATCATTG GCCATAGGGC AGTGCCACCA GCATCCGCAA	2880
TCAATTGTGT ATCAATGGCA TTGGTCATAT GGTGCAGACC TGTGATGACA AATGGAGCGT	2940
AGAGGGCGCC AAAAATTGCA CCGAAGAGCC ATTTAACTGG ACCAGTTAAA CCTGCCAAGA	3000
CAACTGATGA AAGTCCTTGT CCAATTGTCC AACCGATTGG TCCCAAAACA GTATGAGCCA	3060
AAATCAAGGC TGGAATCAAT GACAAGAAAG GTACAAAAT CATAGAAATG ACTTCTGGGA	3120
TATGCTTGTC CAGAAGATT TCAAGATAAG ACAGACTCAA ACCTGCAAGC AAGGCTGGGA	3180
TAAGTTGGC TTGGTAACCG ATACGATTAA CAGTAAATA GCCAAAATTC CAAACCCAGT	3240
TTGCCGCGAT ATCAGCTGCT GGCCTTGAAG CAACCGCATA GGCATTGAGC AACTGAGGCG	3300
ATACCAAAACA GATTCGAGA ACAATTCCCA AAATTTGGCT GGTTCCTATC TTACGAGAAA	3360
CAGACCAAGT AATCCCTACT GGTAAGAACT GGAAGATAGC TTCACCAGGC AACCAGAGGA	3420
AGTGATTGAC ACCTGCCCAA AACTGAGAGG ATTCTGTGAT GGTCTTGCCA TCCAACATCG	3480
ACCAATGGAC ACCTTCCAAG ACATTACGGA AACCGAGGAT CAATCCTCCG ACTATCAAGG	3540
CTGGAATAAT CGGAGTAAAA ATCTCCGCCA GAGTGGTCAT AACACCTTGG ACCACGTTTT	3600
GATTACTCTT AGCTGCAGAC TTGGCTGCTT CTTTGAAAC ACCCTCAATA CCTGAAACGG	3660
CTGTAAATC ATTATAAAG ATGGGCACGT CATTTCCAAT GATTACCTGA AATTGACCTG	3720

1182

CATTGTGAAA GGTTCCTTTA ACAGCTGGAA TTGACTCGAT AGCTTTAACA TTAGCCTTCT	3780
TATCATCTCC TAAACAAAC CGCATCCGTG TCGCACAGTG AGTTACGGCA GTCACATTTT	3840
CTTTGCCTCC GATTGCCTGA AGCAGATCTT TGGCTTCTTG TTCAAATTTT CCCGG	3895

(2) INFORMATION FOR SEQ ID NO: 202:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3936 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 202:

AGGATCGCCG CTCAGCTAC TAAGTCTCGT GCAGTGCCGA TTTATCAAAC AACATTTTTT	60
GTTTTTGATG ACACGTAGGA AGGTGCCGAT CTGTTTGCCT TGAGGAAACC AGGGAACATT	120
TATACTCGTA TCACCAATCC TACAACAGCT GCCCTTGAAG GTGGTGTGA AGCGCTAGCA	180
ACAGCATCAG GTATGACTGC AGTGACTTAT ACGATTTTGG CGATTGCCCA TGCTGGTGAC	240
CATGTAGTGG CTGCTTCGAC TATTTACGGT GGAACCTTCA ATCTTTTGAA AGAACCCCTT	300
CCTCGTTATG GTATCACAAC AACCTTTTTC GATATTGATA ATTTGGAGGA AGTAGAAGCA	360
GCTATCAAAG ACAATACCAA GCTTGTCTTG ATTGAAACCT TGGGTAACCC CTTGATTAAT	420
ATTCCAGACC TGGAAAACT GGCAGAGATT GTCATAAAC ATCAAATCCC ACTTGTGTCA	480
GACAATACTT TTGCAACACC TTATTTGATT AACGTCTTCT CTCATGGCGT TGACATTGCC	540
ATTCACCTCTG TGACTAAGTT TATCGGTGGG CATGGTACAA CTATTGGAGG AATAATTGTC	600
GATAGTGGTC GTTTTGACTG GACGGCTTCA GGGAAATTC CTCAATTTGT TGACGAGGGT	660
CCAAGCTGCC ACAATTTGAG CTATACTCGT GATGTGGGTG CAGCAGCCTT TATTATAGCT	720
GTTCGAGTTC AATTGCTTCG TGATACAGGT GCAGCCTTGT CACCATTCAA TGCTTTCCTC	780
TTGCTACAAA GACTTGAAAC CTCTTCACTT CGTGTGGAAC GCCATGTACA AAATGCTGAG	840
ACAATTGTTG ATTTTCTTGT CAACCATCCT AAGGTAGAAA AGGTAAATTA TCCAAAACCT	900
GCAGATAGTC CTTATCATGC CTTGGCTGAG AAATACTTGC CAAAAGGTGT CGGTTCAATC	960
TTTACCTTCC ACGTCAAAGG TGGCGAGGAA GAAGCACGCA AGGTCATTGA TAATTTAGAA	1020
ATCTTTTCTG ACCTTGCAA CGCGGCAGAT GCTAAATCGC TTGTTGTCCA TCCAGCAACA	1080
ACCACTCAGG GTCAATTGTC AGAAAAAGAC CTAGAAGCAG CAGGTGTCAC ACCAACTAA	1140
ATTCGTTTGT CAATCGGTCT TGAAAATGTA GAAGATTTGA TTGAAGACTT GCGCTTGGCC	1200
TTGGAAAAAA TTAAAGTAA AAGAAGATAA ACGTGGGCT TCGACTCACT GTTTTGTATT	1260

1183

TTCCCTCAGG CATGATATAA TGGTTACAGA AGTCTAGAAA GAGGAACGAT ATGAACGAAA	1320
TCAAATGTCC CAACTGTGGG GAAGTCTTTA CAGTAAATGA GAGTCAGTAT GCCGAACCTCT	1380
TGTCCCAAGT GAGAACGGCA GAGTTTGATA AGGAACTACA CGATAGGATG AAGCAGGAAC	1440
TGGCCTTGGC TGAGCAAAAG GCCATGAATG AGCAACAGAC TAAACTGGCT CAGAAGGATC	1500
AAGAAATTGC GCAATTACAG AGTCAGATCC AAAACTTTGA TACAGAAAAA GAATTGGCCA	1560
AGAAAGAGGT TGAACAGACA AGCCATGAGG CTCTCTTGGC TAAGGACAAG GAAGTACAGC	1620
TCTTAGAAAA TCAGTTGGCT ACCTTGCCTT TGGAGCATGA AAATCAACTA CAAAAGACCC	1680
TTTCTGACCT AGAAAAAGAA CGGGATCAGG TTA AAAACCA ACTACTTTTG CAGGAAAAGG	1740
AAAATGAATT ATCTTTGGCT TCTGTTAAGC AAAACTACGA AGCCCAGCTC AAGGCAGCTA	1800
GTGAACAAGT CGAGTTTAT AAGAATTTTA AGGCTCAACA ATCTACAAAA GCGATTGGGG	1860
AAAGCCTAGA ACAGTATGCA GAGAGTGAGT TTAACAAGGT TCGTAGTTTC GCCTTTCCAA	1920
ATGCTTACTT TGAGAAGGAT AACAAGGTCT CTTGCGTGG GTCTAAAGGG GACTTTATCT	1980
TCCGTGAGTG TGATGAAAAT GGAGTTGAAA TCATTCTAT CATGTTTGAG ATGAAAAACG	2040
AAGCGGACGG AACAGAGAAG AAGCACAAGA ATGCAGATTT TTACAAGGAA TTGGACAAGG	2100
ACCGTCGGGA GAAGAACTGT GAGTATGCCG TTTTGGTGAC CATGCTTGAG GCTGATAATG	2160
ACTACTTTAA CACAGGGATT GTTGACGTCA GTCACGAGTA TGAAAAAATG TATGTTGTTC	2220
GTCTCAATT CTTTATCCAA TTGATTGGTC TCTTACGTAA TGCGGCGCTA AATTCCCTAA	2280
AATACAAGCA GGAGTTGGCC TTGGTTCGCG AGCAAAATAT TGACATTACG CATTTTGAGG	2340
AAGATTTGGA TGCCTTTAAG CTAGCTTTTG CTAAGAACTA TAATTCAGCT TCGACTAACT	2400
TTGGAAAAGC TATTGATGAA ATCGACAAGG CCATCAAACG CATGGAAGAG GTTAAGAAAT	2460
TCCTGACCAC ATCTGAAAAC CAACTCCGTT TAGCTAACAA CAAATTGGAA GATGTCTCTG	2520
TTAAAAAATT GACCCGAAA AATCCAACAA TGAAAGCGAA GTTCGAAGCA CTGAAGGGGG	2580
AGTAGAAAGC AAAAATGAAC GGTATTATTA ACTTAAAAA GGAAGCAGGA ATGACCTCGC	2640
ATGATGCGGT TTTTAAACTG CGTAAGATTT TGGGAACCAA GAAAATTGGT CATGGTGGA	2700
CCTTGGATCC GGATGTGGTG GGTGTTTTCG CGATTGCGGT TGGCAAGGCG ACACGCATGG	2760
TCGAGTTTAT GCAGGACGAG GGTAAAGATCT ATGAGGGGGA AATCACTCTG GGCTATTCCA	2820
CGAAGACTGA GGATGCTAGT GGGGAAGTGG TCGCAGAAAC CCCTGTTTTG TCTCTCTTGG	2880
ATGAAAAGCT TGTGATGAA GCGATTGCTA GCTTGACTGG GCCTATTACT CAGATTCCCC	2940
CTATGTATTC GGCAGTTAAG GTTAATGGTC GCAAGCTCTA TGAGTATGCG CGTGCTGGTC	3000

1184

AGGAAGTGGA GCGTCCAGAA CGTCAGGTGA CCATTTATCA ATTTGAGCGA ACAAGTCCGA	3060
TTTCTTATGA TGGCCAACTT GCCCGATTCA CTTTTCGTGT AAAATGCAGT AAAGGGACGT	3120
ACATCCGTAC TTTGTCAGTT GATTGGGGTG AAAAGCTTGG TTATGCGGCT CATATGTCCC	3180
ATTTGACTCG TACTAGTGCT GCTGGCTTAC AATTAGAAGA CGCTCTTGCC TTGGAGGAAA	3240
TTGCTGAAAA AGTAGAGGCT GGGCAATTAG ATTTTCTCCA TCCTTTAGAG ATTGGGACAG	3300
GTGACCTTGT CAAAGTTTTC CTAAGTCCAG AAGAGGCTAC AGAAGTTCGC TTTGGTCGTT	3360
TTATTGAGCT AGACCAAACG GACAAAGAAC TGGCTGCCTT TGAAGATGAT AAATTGTTAG	3420
CCATTCTAGA AAAACGGGGC AATCTCTATA AGCCAAGGAA GGTTTTTTAGC TAGATCGTTT	3480
AGGAATAAAA ATCGGGTGAT AGATAACAAT TGCTTGATAA AACCCCATAC TAATAGTAGA	3540
ATGTTTGGG GAATTATAAT ATTCCAATTG TTGCGAGTTG TAGGTACTCA AATAATCTAT	3600
ATAGAAATTT AGAGGTGTGA AATGAAGCAA TTTAAAATTC TTTCAGATAA ATATTTAGAG	3660
TCCATTACAG GTTCTGATGG GAACTTAGGC CCAGGATTTG GTGTGATAAT TCCATGATGC	3720
GAAATGAGTT TCGAGAAAGG GTGGAGCAAC TTCTTCAACA AAAAGAAATA AATGAAAATA	3780
GTGAGTTGAG TCACCTGTTT CGTCTTGCTA TACAAAATTT AGACAGAAAT GAAAAATACC	3840
AATCGGTCAT GGCCAATTG AGTCAAGGGT TGTCACTTTA CCTCATGACG CATCATTACC	3900
AGGCACCTAA GTCTGTCATT GATTTTGGTT TATGGA	3936

(2) INFORMATION FOR SEQ ID NO: 203:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3230 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 203:

CATCCAGCAA CTGCTCCTCT GAGCGTTTCA AAATTGATGT AATTTTCTA GTTTTTCTA	60
ATAAATGTGC CATTTTTCAC CTCGAATTTA ATCGCTATCA TTATAACATA AAAACGTCTC	120
TTTTTCAATA ATTATCTGAA AATTCCTTAT TGACTTGCAT TGACTTACAA TTTAATTAAA	180
AACCAGAATA TTTTAAATTA AATGTTTCCT TTTCTATTGA CAAGTGCCT ATTTTGTGT	240
ATCATAATAT TATAAAGAT AATATAATAA TTTTATTGT CTTTTCACAT TCGGTCTCCT	300
TATATAAAAA AGCGATTCAT TTTGAACCGC TTTTCTTAT TTATCGCCTT TGTACGAAT	360
AACAAAGCCT GTTGTCTTTT CGCTTAAAGT ATTGCGTGGT TTTTATTAT CCTTACGGTA	420
ACGTTTTTCC TTATCAAAAC GATCGTTGCC ACGACTTCCT TTTTGAACCT CATCACGGCG	480

1185

ACCATTGCCA CGGCGATCAC GCTCTCGACG GTCGTCCCCA CGACGGCCTC CACGACCTCC	540
CTTAGCTTTA CCACGAAAC CATTACCTGA TGGTTTAAAC GGTAGTGGtT TTTCACGTGC	600
AATCTCCACT TCTGGAAGGC TATCTGGGTC TTGGACTGTC AGACTCAAGA TATACATTGC	660
CAATTCTTCT GGAGTAAACT CAGCAGCCAA TTTGCGAGCA TCCTTACCAA ATTTCTCAAA	720
GTTGGCACGA ATGGTTTCAT CTGCAAAATC ACGTTCGATT TTCTTGAGAG CTACCTGTTT	780
TTTTGATTGG AAGGATTCTT CTACACTTGC AGGTTTGAGA CCTTTCATGC GTTCTTAGT	840
CAAGTTTTC AATGATTTGAA GGTAACCCAT TTCGTTTGGA GCAACAAAAG TAATAGATTG	900
ACCTGACTTA CCAGCACGAC CTGTACGACC GATACGGTGA ACATAACTCT CAGGATCTTG	960
TGGAATATCG TAGTTGTAGA CATGGGTCAC ACCTGAAATA TCCAAACCAC GCGCTGCAAC	1020
GTCTGTGCGA ACCAAAACAT CAAGATTGCC ATTTTAAAG TCACGAAGGA CACGAAGACG	1080
TTTGTTTTGG TCTAGGTGCG CATGAATTCC TTCTGCACGG AAGCCACGAA TTTTCAAACC	1140
ACGAGTCAAT TCATCCACAC GGCCTTTGGT ACGACCAAAT ACAATAGCGA GTTCTGGTTG	1200
TGCCACATCC ATGAGACGAG TCATGGTGTC AAATTTTCT TGTTCCCTTAA CACGGATATA	1260
GTACTGGTCA ACCAATTCTG TTGTCAATTC CTTAGCCGCA ATCTTGACAT GTTCAGGGGC	1320
TTTCATAAAC TGAACACCGA TACGTTTGAT GGCATCTGGC ATAGTTGCTG AGAAAAGCAA	1380
AGTTTGACGG TTCTCAGSTA CACGGGAAAT AATGGCTTCG ATGTCTTCAA GGAAGCCCAT	1440
GTTAAGCATT TCATCCGCTT CGTCAAGGAT AAGGGTTTCA ATGTCTTGTA ATTTCAAGGC	1500
CTTGCGTTA ATCAAGTCCA AGAGGCGACC TGGAGTTCCC ACCACAATAT GGGCACCAGA	1560
TTTAAGAGCC TTAATTTGTT TTTCAATGCT TGATCCGCCA TATACTGAAC GGACTTTGAC	1620
TCCCTTACTA CGACCAAAGC GGAAGAGTTC TTCTTGACTT TGGACAGCTA GTTCACGAGT	1680
TGGAGCGATG ACCAAGGCTT GGATAGTCGC TTCTTCTGTA CGGATTTTTT CAAGGGTAGG	1740
CAAGCCAAAG GCTGCAGTTT TTCCTGTACC AGTCTGAGCT TGACCGATAA CATCCTTGCC	1800
TTCAAGGGCC AAAGGAATAG TTTGTTCTTG GATAGGACTA GCTTCTACAA AACCAGCTTT	1860
TTCAATTCTT GCTAGCAAAT CAGCAGACAA GTTTAATTCA TTAAATTTC CGTTATTCTT	1920
CTTCTAAAG GTGGTGCAGG GCCACCCTAT AGGGCTTAGT TTATACTTTT CTTTTTATGA	1980
CGTATTTTCA TATAACTAGA TATAAAATCG TGTGCTTCT TTTCCACAAA AGAAAAGTAC	2040
TGTTTTCTTT GCAACCTATC TAGTATAACA CAAGACCAGA GCAAAAGATA GCCCATTTT	2100
TACAGAAAT CATGTAAGCG CTTTTGACT TTCTTTTTG ATTGAACGAC CTAGATAATA	2160
AGACAAAGCC AAGGCGATAC TGTATAAAAT GAGAAAAACG AACAAGGTTT GTGTGTACGA	2220

1186

ATGAGCCATT TTATAAGTCT CTGCTAATAA AATAGGTCCC GCTAAACCAG CCATTGCCCA	2280
AGCTGTAAAA ATATAACCAT GCAGAGCGGC CAATTCCTTG GTTCCAAAAA TATCACTGAG	2340
ATAAGCTGGA ATCAAAGAAA AACCAGCTCC ATAGCAAGTC ATCAAAATAG ACATAGCAAC	2400
TACAAATAAA ACGGAATCTG TAAAGAGCCA AAGTGAGAGA GAAAAGAAAA GATTGACAAG	2460
CAGTAATATA CTAAAGGTTA GAGGGCGACC GATATAGTCA GACAAACTCG CCCAGAGCAA	2520
GCGACCAAAAT CCATTGAAAA TCCCCAAAAC ACCCACCATT ACTGCTGCAT GACTTGTAGA	2580
CAAGCCAGCC ATCTCCTGTG CCATTGGCGA TGCCGCTGAA ATTAAGCCTA AACCACAAGC	2640
TATGTTGATA AAGAAAATAA TCCAAAGCAT ATAAAACCGA TTGCTTTTTA GAGCCTGATT	2700
TGCAGCCATT CCTTGCCTCA AAGAGGCTGT TTTTCTTTC CCTGAAGAAG ATAAAATTGC	2760
AAGCTCTGCG TCATTGGAC GCTTAATGAA TTGTGAAGCT AGGAGCATGA TAATAAAGTA	2820
ACTTGCTCCT AAAATATAAA AAGTTTCTAC AAGCCCTACC CCTGCGATGA GGTGTTGCGC	2880
TATGGGACTA GTCAATAAAG AAGCAAAACC AAACCCATA ATCGCTAAAC CTGTTGCGAG	2940
ACCACGTTTA TCAGGAAACC ATTTTATAAT CGTCGACACA GGGGTAATAT AGCCTGCTCC	3000
CAACCAAGC CCACCTAAAA TGCCATAAGC GAGATACAAC AACCACAGCT CTGACGGTCT	3060
ATTGCAAATC CTGTTAAGAT ATTTCCACCT GCGTATAGAA AAGCAGATAG ACTTCCCATG	3120
ACTTTCGGAC CAAATTTTTC TACCAAACGC CCCATAAATG CAGCCGATAA GCCCAAACAA	3180
AAGATTGCTA GACTAAAGGC GAAGGCAACA GAAGCCTGAT CCCATCCCGT	3230

(2) INFORMATION FOR SEQ ID NO: 204:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5096 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 204:

CCTATGAAGA CTGTCCCAAC TGGGTGTCCT TCTAGGCTAT CTGGTCTGCG CACTCCAGTC	60
AAACTAATTC CAAAATCAGA CTGGGTCTTG CTTCGTGCCT GCTCAGCCAT CTTCTGAGCT	120
GTAAATTCAG ACACCACACC ATGTTCTTCC AAATCTTTGG CAGGAATATC CAACATCCTT	180
GATTTTTCCT CCAAGCTATA GGTCACAAAA CCACCCTTAA ATATACTTGA AACTCCAGAA	240
AAATTCGCCA CGGTAGCTTG GAAAAGACCT GCCGTCAAAC TCTCTGCAGC CGCGATGGTT	300
TTCCCTTGCC TTTTCAGTTC TTCTACCACA ATGCTGGCTA AACTAGTTTC TTCCCCATAA	360
CCATAGCAAA AGTCTCGTAA AGAAATTCCT TCGAAAGTCT GGCAGTCCAA GATTTGATTT	420

1187

TCCAAGATAT CCAGCGCTTG ATTGCGCTCT TCTTGACTGC TAGCCTTTGT TGACAGACGT	480
AGAGTGACTT CTCTGTCTT GGCATAAGGG GCCAAGGTAG GATCGATCTG ATTATCAATT	540
AAATCAGCCA AAATCGTAAC CAACTGGCTC TCGCCAATCC CAAAGAAACG AAGAACTCGG	600
GAATACAGCT TGCTCCCTGT CATCAACTTG GGTAGAAGTT GGTTTAAGAC CATGGGTTTC	660
AATTCACTTG GCGGACCTGG AAGGACGACA TAGGTCACTC CGTCTACTTC TAATTTTCCT	720
CCAACAGCCA GTCTGTGTTT GTTTGGCAGT GGAATCGCTC CTTCTACAAT TTGAGCTTGT	780
CTTTCGTTAT TCGGTGTTTC GGCATAGTCT GGTGCGAGGG TAAAAAAGAT ATCCAACCTC	840
TCCTGAGCCT GAGGATCAAA GACTAATGCT TTCCCTAAAA ATTTAGCTAG GGTTCGTTTG	900
GTTAGGTCGT CCTCAGTTGG CCCCAAACCG CCTGTCAAAA TCACCAGACT GCTACGTTGA	960
CTGGCAATCT CAAGCAAAGA CAAGAGACGA ACTTCATTGT CTCCTACAGC CGTCTGAAAA	1020
TATACATCTA CCCCAATCTC AGCTAGTTTT TCCGACAAAA ACTGGGCATT GGTGTTGACA	1080
ATCTGCCCTG TCAAAATCTC TGTTCACA GCAATGATTT CTGCTTTCAT GTTTCCTCCT	1140
ACCTATCTAT TCGTATTTTT TTGAAAAAAT CGCAGGAATT TTCCTACGAT TGATTTTTTT	1200
ATTTGTATCA AAAGTTAATT ATCTTCATCA CCAACAGGTG CTCTGCCAAA TAAATCTTCA	1260
AATAAAACCG CATTTGGTTTC AAGCTGAGTA ACTTCTTCTT GTCCCAAAGA ACGTCGGAGT	1320
AGATTTTGCA TTTCCAACAT ATGTGCTCTC GAAACAATCT GGTAAGAAAC ACCTGAAGT	1380
ATCTCTCCTT CACCCTGCAA CTGCTGAGTT TCAATGGTTT TAAATGAATC TTTATAGCCT	1440
AGCAAGTTAG GGATACTTTT TGCAGACAAA TCAATATTGG TCTGCATATT GTCAC TCAA	1500
GCTTTTAGAA TCTCTTGATA ATGACCAATG CTATTTAAAC TGAGAGCTTT TTCCATGACT	1560
TTTTGAATAA CTTACGTTG ACGTTTTTGA CGACCATAAT CCCCCTCAGG ATCTTGGTAA	1620
CGCATTCGTG CATAGACTAG GGCTTCTTCT CCCC AATAT GTTGCTCCCC AACACCGATA	1680
GAAATAGTAT TAAATTCTTC TTGGTCACTG ATAGAAATG GGAAACCTAG GATATTATTG	1740
ACTGTAATAC CTCCTACTGC ATCCACTAGT TTTTGCAATC CTCTCATATT GACCATCACA	1800
TAGCGATCAA TATGGATATT CATCATTTTT TGAATGGTTT CTATAGCAAG CTCTGCTCCA	1860
CCATCTGCAT ATGCTGAGTT CAGTTTCGCT TCATGAGCCT GACCATTCCC TGATTCAATG	1920
CGCGTCAGAA TATCCCGCTC TAAACTCATC ATTGTTGTTT TTTTCGTTTT AGGATTCACT	1980
GTCAACAAGA TCATGCTATC ACTTCTACCG ACCCAAGTTT CAGTTCGPTC AACATTTCCG	2040
GTGTCCACTC CCATTAACAG AATGGTTAGA GGTTCAGTCG CTTCAATAAC CTTGGTTTCT	2100
TCACCGATTT TTTTATAGGT TTTAGCTAAG GTTCTGTCC CTTGTTGATA AATAGTATAA	2160

1188

GCAAAAACAC CTA	CTCTCTAC	TACAGTTACA	GAAAGTAAAG	CTAGCACCAT	TCCAATAATT	2220
TTTTTAACCA	TATTTCTACT	AACCTATCAG	TTTACCCATC	AAGTAAACAT	CGATAAATTT	2280
CCCTTCTTCT	ATATATGCCC	CACGCTCTTG	GCTACCTTCA	ATGACAAAGC	CATGCTTTTG	2340
ATAAAGATGG	ACTGCTGCTT	GATTACGAGT	TTGGACAGTC	AGTTGGAGAC	GACGCAGAAT	2400
GCCACTTGCT	TGTGCCCACT	CTATCGCTTC	TTCTAGCAAC	AAACTTCCCA	AGCCATTATT	2460
CCAATATCTT	TTTCCAATCA	CAATGAAGAG	ATCTCCAATA	TGACGGACTC	TCTTACGCTG	2520
ATCAGCTGTA	ATATTTACAA	TACCAGCAAT	TTTGCCATT	AAGAAATGCA	GTAAGGTTAT	2580
CTGATTGTCC	GAAGTAGCTT	GCTTGTGAG	GAATATTTCC	ATCTCCTCAC	TAGTCAAGAG	2640
AATACCATCT	CCGTCTAGGC	TGTTAAAGTC	TGTCTCCAAA	CTCACACGAT	TTAAAAAGGC	2700
CACTAATTCA	GCTGCATCTT	TGGGCTCTGC	TTCCCTAATG	AGCAATTCAT	ACTCCATATT	2760
GAAGCTCCTC	TAACAATTTT	TCAGCACGCA	AACCTTTTGC	CTGAAAATTT	AAACGGCGTC	2820
CATCTGCTTC	TTTTAGAATT	TCCAATTCTA	AATAAGCATC	TGGCAAGGCA	TCTCCTAAGA	2880
GATTTCCCCA	CTCAATAACA	GTCACGCCGC	CACCAAAGAT	AAACTCATCC	AAGTCGATAG	2940
AATCAGCATC	TCCTTCAATA	CGATAAACAT	CTAGGTGATA	AAGTGAAGT	CGACCTTCAT	3000
ACTCTCTCAC	GATAGTATAG	GTGGGACTTT	TAATCATTTG	AGAAATCTGT	AATCCTTTTG	3060
CAAGTCCTTT	AGTAAAGGTC	GTTTTACCTG	CACCCAGTTC	TCCAGTTAAG	ATTAAACAT	3120
CATTCTTTGC	TAATAGATGG	CCCAAACGCT	CCCCTAAGGC	TTGCAACTCT	TCTTCATTTT	3180
TTGTGTACAT	ACTCTTATTA	TACCAAAAAC	TTTTCTTTTG	TGTCTATTTT	CCTACTAAAC	3240
TTATCATCAT	AACATCCATA	AAAAACAGGC	TTTCTCTAAA	AGAAATGAG	CGTAACAATG	3300
ACCAATACAA	GATCTCGGAA	AATATGACCA	TAAAAGGAAA	CTTCCTTCTT	AACCGAATTT	3360
GGGACAAGAT	AGGCTGCAAA	AAACAAGCCC	AGTCCAATAT	AAATCAGAAG	TGAGACAATG	3420
GTCATTGGAT	TTCTTAAGAA	AAGAAGTGT	GCTAAAATAG	TCACCAACAC	TGCTTTTTTT	3480
CTGTCCAGCA	TAGCAAGAAA	ATCGCGCACG	TATTTTTTCA	AGGGTAAAAA	AATCAGCAAA	3540
TCTAGCCCAA	ATAGGAAAAA	GAAGGATGGC	AATAAAAAGT	CAACTAATTC	TTGCTGCAGC	3600
GTATTTTGA	TGAACAAGTT	ATCTGACAAA	ACAAGAACAG	CTCCTAACAA	ATTAATTAAG	3660
AGTAACATAC	TGTAAGAAA	CTTCACCGAC	TTCTTACTGG	CTAGGACACT	ATGGACTTCT	3720
TGCTTACGGG	TATAAAGATA	ATTACTCCA	GCACAGATTC	CTGAAACGAA	AACCATGCTT	3780
CCGATGAAAA	AAGCTGTACT	TTGTTTAAAG	GACAAGATGC	ATTCTTTCCA	TAGGAAACAG	3840
CTACTCAAAC	TGATTTGAAT	TAAAGCTAAC	AAAAATAAGA	TTCTCATTGA	TTTCATCTTC	3900
TCTCTCCCTT	CCTACCAATC	ATTATACTAG	GAGAAAAGAG	AGAAGTGT	CTAATCTTCT	3960

1189

CAAAATGTCTC TTTAAGACGC TAAACAAACA CTAGAGACTA ATACTCAATG AAAATCAAAG	4020
ATCAAACCTAG GTAGCTAGCC ACAGGTTGCT CAAAACAGTG TTTTGAGATT GCAGATAGAG	4080
CTGACGTGAT TTGAAGAGAT TTTGGAAGAA TATAAATTTG AAATCATGAA AATCCGTCAA	4140
ACGGGTGGTT GTTTTGTCTC GCACCTCAGG GAGCGAGACG GACTCAGAGT CACATAATTA	4200
TAAGGCTGAT AGTATTAATC TAACTATCAG CcTmCAGGTT ATTTAACGTT TCAGAAAAAC	4260
TATAATGTCA AGATTAACTA AACAGTATCT AGTTCCTTCA AATAATTTTC TATCTTCATC	4320
AACATTAAAG GATTGTATA AATCTTACAT AACTCTCTTG CTCTATATA ATAATTTTTG	4380
ACTTGTCTC TGTCTAGAAA TTTGGCTCCA GCATTTCTTA CAAGAATAAG TAGAGGAGCC	4440
AATTGGTAGC TTGTCTGTCT TTGTTTACAG AGTTCAATCG TTCAAGAGC TTCTTGGATG	4500
GCTTCATTAT ATTTTCTCTT TGATACTAGG TAGTGAGCGT AGTTGTAACG AACTCTGATG	4560
TAGCCAAATA AAAACTCTTG ATGGTCCAAA TTTTTTGTCT GATACAACTC TATTAAATGA	4620
GAGTAGTTTG CCTCATATTC TTGTTACGA CCCACTAAGG AATAGAAATT AGATAGAGTA	4680
TTCAACGCCT TTAATAAAT CAGAGTATTT GAAGAGACTT TTAATAATAT ATTTTCCAAT	4740
GACGAAATTG CCTCACACTT ACTGTCATAT TGATAGAAGT CAATTATAGA TTTAATCCAT	4800
TCAAGGTAAG TTCGGTCTTC TAATGTTAGA AAAGTGCTTC GTTCTACTTC TATTTTATAA	4860
AGATATTCTA AATCGTCATA ATTTCTGTCA TCTAATAGGC GAGCAGATAG ATGTTTGAAA	4920
TTAGAGAGGT TAGACTTAAC TTCGATTTGT TCATTGAAAA AGTAATCCAA AGGGACTTCA	4980
AGTCGTTGAG AGAGTTTGAA TAACAAGTCT GCGGAGGGAA TAAATGACC TCTTTCAATT	5040
TTACTAATCT GGCTTTGTTC ACAAATTCCT TCTGCAAGAG TTTGTTGGGA GAGTCT	5096

(2) INFORMATION FOR SEQ ID NO: 205:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2395 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 205:

ACAAGATAAA AATAAAGGAT TACAATGGGG AATATAAAGT AAACCGGTAA ACCTAAAAAG	60
AAAGGAGAAA AGATGAAAAT TGTACTTGTA GGGCATGGAC ATTTTGCTAC AGGGATTAT	120
AGTTCCTTAC AATTGATTGC AGGTAATCAA GAAAATGTGG AGGCGATTGA CTTTGTGGAA	180
GGAATGTCAG CAGATGAAC CAAGCAAAA ATCTTACTTG CAATTTCAA TGAAGAAGAA	240

1190				
GTTTTAATCC	TAAGTGATCT	CTTGGGAGGA	TCGCCATTCA	AGGTTTCTTC TACCATAATG 300
GGAGAAAATC	CAGCCAAGAC	AATGAATGTT	CTCTCGGGTT	TGAACCTAGC CATGTTAATG 360
GAAGCAGTCT	TTGCTAGAAT	GGCTCATAGC	TTTGATGAGG	TTGTTAATAA ATCAGTAGTG 420
GCGGCCCCAGG	GCGGAGTCGT	AAATGGTAAA	GAATTGTTTT	CAACGGATGC AGAGGAAGAG 480
GAAGAAGATT	TCGAATCGGG	TATTTAAAGG	GTAAAAGAAT	GATAAAAAAG GTTACGATTG 540
AAAAAATAAA	ATCGCCTGAG	CGCTTCTTAG	AAGTACCACT	TCTGACGAAA GAAGAAGTCG 600
GCCAGGCAAT	CGATAAGGTT	ATTGCGCAGT	TAGAACTCAA	CCTTGACTAT TTCAAGGAAG 660
ATTTCCCGAC	GCCAGCTACC	TTTGATAATG	TCTATCCAAT	CATGGATAAC ACGGAATGGA 720
CCAATGGTTT	CTGGACAGGA	GAAGTGTGGT	TGGCTTATGA	ATACAGTCAA CAGGATGCAT 780
TTAAAAACAT	CGCTCATAAA	AATGTTCTTT	CTTTCCTGGA	TCGTGTCAAT AAGAGAGTAG 840
AATTGGATCA	CCATGATCTC	GGCTTCTTGT	ACACACCGTC	TTGTATGGCT GAATATAAGA 900
TAAATGGAGA	TGGAGAGGCT	AGAGAAGCAA	CCTTGAAAGC	TGCAGATAAG TTGATTGAAC 960
GCTATCAAGA	AAAAGGTGGT	TTTATTCAAG	CTTGGGGAGA	CTTGGGCAAG AAAGAGCATT 1020
ACCGTTTGAT	TATCGACTGC	TTGCTCAATA	TCCAACCTCT	ATTCTTTGCT TATCAAGAAA 1080
CAGGCGATCA	AAAATACTAC	GATATTGCAG	AAAGCCATTT	CTATGCTTCA GCTAATAATG 1140
TAATCCGTGA	TGACGCTTCG	TCCTTCCACA	CCTTCTATTT	TGATCCTGAG ACAGGTCAAC 1200
CCTTTAAAGG	TGTAACGAGA	CAAGGGTATA	GTGATGATTC	ATGCTGGGCA CGTGGTCAAT 1260
CATGGGGAGT	CTATGGTATT	CCTTTGACTT	ATCGTCACCT	AAAAGACGAG TCCTGCTTTG 1320
ACTTGTTTAA	GGGTGTGACC	AATTATTTCT	TGAATCGTCT	GCCAAAAGAT CATGTGTCCT 1380
ATTGGGATTT	GATTTTAAAT	GATGGTAGTG	ATCAATCACG	AGATTCTTCA GCAACAGCTA 1440
TCGCCGCTCTG	TGGGATTCAT	GAAATGCTAA	AACATCTCCC	AGAGGTGGAT GCTGACAAAG 1500
ATATTTATAA	ACATGCTATG	CATGCCATGC	TTCGTTCCCT	GATCGAACAT TATGCAAATG 1560
ATCAATTTAC	CCCTGGTGGG	ACAAGTCTCC	TCCACGGTGT	GTACTCATGG CATTCAAGTA 1620
AAGGAGTGGA	TGAAGGCAAT	ATCTGGGGTG	ACTACTATTA	CCTAGAAGCC CTTATCCGTT 1680
TCTACAAAGA	CTGGAACCTA	TATTGGTAGG	AGGAGAAATA	TGACAATGCC AAATATTATT 1740
ATGACCCGTA	TCGATGAACG	GTTGATTCAT	GGACAAGGAC	AACTTTGGGT AAAATACCTA 1800
GGTTGTAATA	CGGTCATTGT	TGCCAATGAC	GAAGTAAGCA	CGGACAAGAT GCAACAACT 1860
CTGATGAAAA	CAGTTGTGCC	AGACTCAGTT	GCCATGCGTT	TCTTCCCTTT GCAAAAGGTG 1920
ATTGATATCA	TTCACAAGGC	TAATCCTGCT	CAAACGATCT	TTATCGTTGT AAAGGATGTG 1980
AAGGACGCTT	TAACCTTGGT	AGAAGGTGGT	GTCATATCA	AAGAAATCAA TATTGGGAAC 2040

1191

ATTCACAATG CCCCTGGTAA AGAGCAAGTG ACACGCTCCA TCTTCCTGGG TGAAGAGGAC	2100
AAGGCGGCCC TCAAGGAATT GAGCCAACT CATCAAGTAA CATTTAATAC GAAAACAACT	2160
CCAACAGGAA ATGATGGAGC TGTTCAGTC AACATTATGG ACTATATTTA ACAGAGGAGA	2220
TCGTTATGTC GATTAATGTA TTTCAAGCGA TTTTAATTGG ATTATGGACA GCTTCTGT	2280
TTAGTGGAAT GCTGTTAGGA ATTTACACCA ATAGATGTAT TGTTCGTCA TTTGGTGTG	2340
GAATTATCT AGGTGATCTG TCATGCTCTT GCAATGGGAG CCAATGGTGA ATTGG	2395

(2) INFORMATION FOR SEQ ID NO: 206:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3342 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 206:

CTTCTTTAG AGGTTAATTT TGCAAAATCG TCGATTGTTA TATAAGGATT ATTATAGAGA	60
CTGTTGCGAA AGAATCTCTG ATATGTTTTT GAATCTTTT AATACAAAC TATCTCTCTA	120
ATAGCATTGC CATCTGTTCC ATCAATTGGT AACATACCG TAACTAGAAA AAGAATTATA	180
TTCAAAATAA AAAATCTGA TCGGTACGGC ACAAATCCCA AAAGTGCTAA TATTGCGACA	240
ATTAGGTTAG CTCCACCTCC CCCAAAGAAG TAGAACACCA AATTCCTATC ACTATTTTTT	300
TCATTAGTAA TGTTCATTT ACTCATTTGA CAATAACCGA ATGCTAATAA CACTGGAAAT	360
TTGAAATATA TTTTCTTCT GAAATAGAAG AAAAAGGGAG TAGCAAGCAT CTCTAGTTTA	420
TAAGATAAAC ATCTTCCAC TAAAAATGA CCTAGTTCAT GTAATGTAAT TGATATTAAC	480
GAAATTAAAA TCAATCGAAA ATAATAGATT AATGAATCAT TTGGAAAAAT TATCAATAAT	540
AGGAACAATA ACGGAATCAA ACATAAATAT ATGACAGAGT TATTTAATAT TTCAACATA	600
ATACCATTCC TCTAACTAT TAGCTTCAA AAGGCGTTTT TTCTCCCAAT ACATCTTCTC	660
AAAATGTTGC GAATCATAAT TTTCTAAAT TAATTTTATG TCTGGTAAGC TCTTCTTGA	720
TAATCCGTTG TTTGTACTT AATTTCCCT TCAAGTACAT CTTCAATTTT ATAAGTTGCC	780
TCCATCAACT GAGCCTCTGC AATATCTTTG AGTGAATTGG TAATTGAAAC TTGGTGTAA	840
ATCTGTCCCT CCATATATGA AAATATATCT CTAAGATATT CTGACACATT ATCAGAGCCG	900
TTACTCTCAG CAACATCTAA TGTTACAACA AACTTTCCAG CTAATCGAAA AAGATGGCTC	960
CACCCCCCAA TCCTTTCAAT AAAGTTTTTT GTGTCCACAG ATACGTTTGT TAAATATACA	1020

1192

GGAGAAGAGA TAATTATAAT ATCAGACTCT AATAACTCTT TTTTATAAC ACCTCCATCA	1080
TCAGCATTAC TTTGCCTATC AATTCCTTTC TTAAACAACCT CTTCTGAATC AGAATTAGAT	1140
ATTTCTAGCT CTGAATTGAA AGGTGTCCTG AAAGATATAT CAACATTATT TCTACTAGAA	1200
ATGATACTTG AAAGTCTCTT AGTATACTCT AAAGTCTTAG AGTTATGATT TCGCACTCCT	1260
GCATATATAA ATATTTTATT CATTTTAATT CATCCTCTCA ATTTGAATTT AGTAGATTTT	1320
TCAAGATAGT ATGGTACAAA AACAGACTTT TGTGACTCA CATTATTACA TATGTTTGT	1380
ATTAAACCAA AATCAATACT ATTTTGGAG TAATTTTGAT TTTAGTTTAA AATCAITTCCT	1440
ATAACAGTAG CATATACCTC AAGCCGTTTA GCAATTAGAA TAGAACTTTT CTTTATTATA	1500
TTATTATCTC AACGAAAAGC TACACTATTA AAAATATTTT ATAGAATTAC ATATTAACT	1560
AGTCAATCTT GGTATTTTAA TATTGCTTAA TGAGTGGACA CCTCTATTTT AGAAACAAAA	1620
CTATAAATTA AGCTAGATTT CAAGTAATGA GGGGATAACT ATCTTTTGT CATCTGATT	1680
CAGTGGGATA TACCTTAAAA AAGTATAAGC AATACCAGTC ACACCTGTAT ACAAAGAAAA	1740
ATCTGGGAAA TTGCTTGTTC GGACGATACG ATACTCTCCT TCTTTTGATT TATTCATTAC	1800
AACACTACAC AATAAAGACT CCAATTCAT ACTAGTATCC ATTTCTTTCA TGTAGTCGAT	1860
GTAAAAATTT ATTATGGCCA TACTTCCATG GCAAAATGTA TCATTATCTA AACTAGCTAC	1920
AATTCCTCTT GGAACACTTT GGGGATGATT AACTAATGTC CCAAATCTC CACTACACCA	1980
CTTCAAAGAA TGAATTTTGA TTTTCTCCCT AGGAACTAGT TGTAATAATTA ATTCTTTATA	2040
TTTTTTAAGT CTGTGCACTT TATAAATATT TTTAATGTA AAAATTACAC CTGATAGTCC	2100
ATGGCCAAAA CTATATCCAA AATTACTATT ATCTCTCTCG CTTACATCAT TATATAGCGT	2160
ATCACCTAAA CTTAATACTA GCCTTAGAAC ACGTTCCTTC TCTATTCCTC TCCTATAATA	2220
TCTTACCAGT GTATTAATTA AAGGTAGAAG ACCATTAATA TAGTCAGACT TGTGTGAAAC	2280
ACTTGCAAAA TCAGTCTTTT CAAGCTCAGT TAAAACACTC TTTATATAAT TTAAGCATGC	2340
GAGAGTATTT GTATCGTAAT CCTCTATAAT GGATAGAACA ATGAAATATC CTATATCCCC	2400
AGTTAAACCA AATGTGGTCT TAGATAAAGA AACAGATGGC GGAATTGCAG ATAACATTTT	2460
ATTGTACAGT TGAGTATATG ATGATTTATC TTCAATAAT TTTACATAGT ACATAAACAG	2520
TAATATTCCA GCTCTACCCC TATACATATC ATTTCCCGTT TGTTCAGAC ACCATTTAGA	2580
ACCTTTAAAA TTAACAGGTA TACTCCAAAT TGGATATTCG TCATAAATAT TATTAATAAC	2640
CAAAGAGTCT GCAATATTTT CTACTTCATT ATGCAGAATA GTAACATAAC TTTCATTTGG	2700
GAGTTTTTTT CTATTAGATA AGTTTAATTT ATATCCTTTT TTTGCTGAT CAAAGCTTGG	2760
AAAATAAATT TCAATGATAT CAAGTTCCTT TTCTAAATTT TCCAAATTAT TATTAGGTAA	2820

1193

ATATTTTCATA AAATAGTCAT ATCCAGAAAA TTGATGTAGG GAAATAAAAT GATTTCCAAA	2880
ATCATCGTAG ATTTCAATTGA TATTTGTATC TGTATAAAAA ATCGGAATAT CTAATAACCT	2940
CATTTGTTCA CATTCGCTTG CTACAATACC TTGATTAGAA AACTTATTGC TCCAGAGATT	3000
TTCCAATGCT TTTTCTCTAT CTAACATTTC TTCATAAAAA TCAGGATGAT ATAAAAAGA	3060
TAGTACTGAA GCATAGCTAT TTGTGTCTCT AAAAAGTACC CTTGTCTTTA AACCATACAA	3120
GTTCGCTTTT AATAGCATTT TAAATCTTTC TGTTTTATTT AACTCTTCAA ATATCAGATA	3180
AAAATCCCTA AAACCTTTTT TGAAATCTTT TATATACTTA TCAAATTCTA TATCACCATC	3240
CCGAACAGGC AGGTTTTTCC CACCTTCAAA ATCAATTTTC CCAATATCAA ACTTTACCTT	3300
ATCAGTATTT AAATTAATTA AAACCTTGACC AGGGATCCTC TA	3342

(2) INFORMATION FOR SEQ ID NO: 207:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3454 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 207:

GAGAAAAGAA TGTTAAAGAA AAATGATATT GTAGAAGTTG AAATGTGTA TTTGACCCAT	60
GAAGGGGCGAG GAGTTGCCAA GGTAGATGGT TTGGTCTTTT TTGTAGAGAA TGCTTTACCG	120
AGTGAAAAAA TTCTCATGCG TGTCTCAAG GTCAATAAAA AGATTGGCTT TGGAAAAGTT	180
GAAAAATACC TTGTCCAGTC ACCACACCGT AATCAAGATC TAGATTTGGC TTACCTGCGT	240
TCAGGAATCG CGGATTTAGG ACACCTTTCT TATCCAGAAC AGCTCAAGTT TAAAACCAAG	300
CAAGTCAAGG ACAGTCTCTA CAAGATTGCT GGAATTGCAG ATGTAGAAGT TGCTGAAACG	360
CTTGGTATGG AACATCCAGT CAAGTATCGC AATAAGGCGC AGGTGCCCGT TCGTCGAGTG	420
AATGGTGCTCT TGGAAACAGG ATTTTCCGT AAGAATTCGC ATAACCTCAT GCCCCTTGAA	480
GATTTCTTTA TCCAGGATCC TGTCATTGAC CAAGTCGTAG TAGCTCTTCG AGACCTGCTC	540
CGTCGTTTTG ATTTAAACCC TTATGACGAA AAGGAACAGT CTGGATTGAT TCGGAATCTT	600
GTGGTGCGTC GTGGTCACTA TTCAGGACAA ATCATGGTCG TTTTGGTGAC AACTCGTCCA	660
AAAGTTTTTC GTGTTGACCA ATTGATTGAA CAAGTTATCA AGCAGTTCCC AGAGATTGTG	720
TCTGTCATGC AAAATATCAA CGACCAGAAT ACCAATGCGA TTTTGGTAA GGAGTGGCGC	780
ACTCTTTATG GTCAAGACTA TATTACGGAC CAGATGTTGG GAAATGACTT CCAAATCGCT	840

1194

GGCCCAGCCT TTTACCAAGT CAATACTGAA ATGGCGGAGA AACTCTATCA AACAGCCATT	900
GACTTTGCAG AGTTAAAAAA AGATGATGTG ATTATTGATG CCTATTCTGG TATTGGAACC	960
ATTGGTTTAT CAGTCGCCAA GCATGTCAAA GAAGTCTACG GTGTTGAACT GATTCCAGAA	1020
GCAGTAGAGA ATAGCCAGAA GAATGCTTCT TTGAACAAGA TTAATAATGC CCACTATGTC	1080
TGTGACACGG CTGAAAATGC CATGAAGAAA TGGCTCAAGG AAGGTATTCA ACCAACCGTT	1140
ATCTTGGTTG ATCTCCACG CAAGGGCTTG ACAGAAAGCT TTATCAAAGC AAGCGCCCAA	1200
ACAGGAGCCG ATCGCATCGC CTATATCTCC TGCAATGTCG CAACCATGGC GCGTGATATT	1260
AAACTATACC AAGAGTTGGG ATATGAATTG AAGAAAGTCC AGCCGGTGA TCTATTTCTT	1320
CAAACGCATC ACGTCGAGAC GGTAGCACTT TTGTCCAAAC TCGATGTCGA TAAGCACATA	1380
AGTGTGTAAA TTGAGCTGGA TGAGATGGAT TTGACAAGTG CGGAGAGCAA AGCAACATAT	1440
GCTCAAATCA AAGAATATGT TTGGAATAAA TTTGAATTAA AAGTTTCGAC ATTATATATT	1500
GCACAGATAA AAAAGAAATG TGGAATAGAA TTACGAGAAC ATTACAACAA GTCTAAAAAG	1560
GATAAACAAA TTATTCCACA GTGTACACCT GAAAAAGAAG AAGCCATCAT GGATGCTTTG	1620
AGACACTTCA AAATGATTTA ATAGAAAAGA ATGACAGTAT ATGACTTTCT GCATTATATTA	1680
CATTCTACT TGGTATAGGA ACAGCTATTA TTCCTTTCTT GCAAGGTATC AATTAGAAAA	1740
TAGGCTCAAT ATAAAGATG ATAGGATCAT TTTTATATTT AAAGGAGCGT TGAAATGATT	1800
GATAAAGCA ACAAAAAATT TTAGGATAAA TTTGCTAAGT TGTATGCCTC TTTTATGAAA	1860
AAAGATAAAG AGGTTTATGA TAAAGTTTGT GAATATCTTA GTCTCATTTT GAATAAAGAT	1920
ATGGAGGTGC TTGAACCTGC TTGTGGTTT CGTGTCAATA CAGTTATAGA GGCAAAATAGT	1980
TATGTAAATA TAAGGAGTTC AAGACTTCTA CCAAAGTTTA AACTCAAAA AATAAATAGT	2040
TGGTGTGCTG CTTACAATAT CCATTTTAAT AATGGATATT GTAAGCAGCA CCCCcAtGAA	2100
TTTAAAGATT CTTTAAAGAG TCTTATTTTG TGATGAAAAT TTAATATGTA AATCTCAGAC	2160
GATAGAAATT AAAAATCTA TCGTCTTTTT TATACTCAAA ATTAGGAGGT AAAAATGGTA	2220
AGGATAAGAG GTCCCACTTA AAACAATTTA TGGCAAAATA AGGACGGAAT AACACAACAA	2280
ATTCTCTAAA ACAAACTACT AAATCAATGT AAGATTGAAT GAAATCAATA TTTATGCTAT	2340
AATTAAATAA ATTTAATGAA GAAAAAAGA GGGATATTAT GGCACCTAAC TATAAACCAT	2400
TATGGATACA GTTAGCAAAA AAAGGACTAA AGAAAACAGA TGTAATAGCT ATGGCAGGAC	2460
TTACAACAAA TGTTATGGCA CAAATGGGAA AGGATAAACC AATTACATTT AAGAATTTAG	2520
AAAGAATATG TAAGGCTTTA TCTTGCACTC CTAATGATAT TATTAGTTTT GAAGATAATT	2580
TTAGTGACGA GGAATAGAAA ATGACTTTAA GGACAGAAGA TCAAGTTAGG GATTATGCAA	2640

1195

GAGAAGTATA GGCTTTAATG AAGTTGAAGA AAACATCAAT CAAGGTACTG GTCAAATAAC	2700
TACTTTTAAT CAATTAGGCT TCAAGGGATA TTCAAATAAG CCAGATGGTT GGTATTACC	2760
TAAAAATATG AATGATGTAG CAATAATCCT TGAACAAAA TCAGAAGAAA GAGATATTAG	2820
CAACAAATT TTTATTGATG AGTTAATGAA AAATATAGAC ATAATTTAAC TAAAAATAA	2880
AACTAGATCC TTTTTTGAAA AAATTATATT ATTAAATTG TAACGTATC TATTGACAAT	2940
GATAATTATT ATCGATACAA TAGACTTGAA ATATGTTTAA GGAGTTTTTA TGAAAACAAA	3000
TTTTTCTAA TmGCTATTTT AGCTATGTGT ATAGTTTTTA GCGCTGTTC TTCTAATTCT	3060
GTTAAAAATG AAGAAAATAC TTCTAAAGAG CATGCGCTG ATAAATAGT TTTAGATCAT	3120
GCTTTCGGTC AAATATATT AGATAAAAA CCTGAAAGAG TTGCAACTAT TGCTGGGGA	3180
AATCATGATG TAGCATTAGC TTTAGGAATA GTTCTGTG GATTTCCAA AGCAAATTAC	3240
GGTGTAAGTG CTGATAAAGG AGTTTTACCA TGGACAGAAG AAAAAATCAA AGAACTAAAT	3300
GGTAAAGCTA ACCTATTGA CGATTGGAT GGACTTAACT TTGAAGCAAT ATCAAATCT	3360
AAACCAGATG TTATCTTAGC AGGTTATTCT GGTATACTA AAGAAGATTA TGACACTCTA	3420
TCAAAAATTG CTCCTGTAGC AGCATACAAA TCTG	3454

(2) INFORMATION FOR SEQ ID NO: 208:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3752 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 208:

CGGGAGTATA CTTAATATAA TTATAGTCTA AAAATGACTA TCAGAAAAGA GGTAATTTA	60
GATGAATAAG AAAAAATGA TTTTAACAAG TCTAGCCAGC GTCGCTATCT TAGGGGCTGG	120
TTTGTGTACG TCTCAGCCTA CTTTGTGAAG AGCAGAAGAA TCTCCACAAG TTGTCGAAAA	180
ATCTTCATTA GAGAAGAAAT ATGAGGAAGC AAAAGCAAAA GCTGATACTG CCAAGAAAGA	240
TTACGAAACG GCTAAAAAGA AAGCAGAAGA CGCTCAGAAA AAGTATGAAG ATGATCAGAA	300
GAGAAGTGA GAGAAAGCTC GAAAGAAGC AGAAGCATCT CAAAATTTGA ATGATGTGGC	360
GCTTGTGTT CAAAATGCAT ATAAAGAGTA CCGAGAAGTT CAAAATCAAC GTAGTAAATA	420
TAAATCTGAC GCTGAATATC AGAAAAAATT AACAGAGGTC GACTCTAAAA TAGAGAAGGC	480
TAGGAAAGAG CAACAGGACT TGCAAAATAA ATTTAATGAA GTAAGAGCAG TTGTAGTTCC	540

1196

TGAACCAAAT GCGTTGGCTG AGACTAAGAA AAAAGCAGAA GAAGCTAAAG CAGAAGAAAA	600
AGTAGCTAAG AGAAAATATG ATTATGCAAC TCTAAAGGTA GCACTAGCGA AGAAAGAAGT	660
AGAGGCTAAG GAACTTGAAA TTGAAAAACT TCAATATGAA ATTTCTACTT TGGAACAAGA	720
AGTTGCTACT GCTCAACATC AAGTAGATAA TTTGAAAAAA CTTCTTGCTG GTGCGGATCC	780
TGATGATGGC ACAGAAGTTA TAGAAGCTAA ATTAAAAAA GGAGAAGCTG AGCTAAACGC	840
TAAACAAGCT GAGTTAGCAA AAAACAAAC AGAACTTGAA AAACCTCTTG ACAGCCTTGA	900
TCCTGAAGGT AAGACTCAGG ATGAATTAGA TAAAGAAGCA GAAGAAGCTG AGTTGGATAA	960
AAAAGCTGAT GAACTTCAA ATAAAGTTGC TGATTTAGAA AAAGAAATTA GTAACCTTGA	1020
AATATTACTT GGAGGGCTG ATCCTGAAGA TGATACTGCT GCTCTTCAA ATAAATTAGC	1080
TGCTAAAAA GCTGAGTTAG CAAAAAACA AACAGAACTT GAAAACTTC TTGACAGCCT	1140
TGATCCTGAA GGTAAAGCTC AGGATGAATT AGATAAGAA GCAGAAGAAG CTGAGTTGGA	1200
TAAAAAGCT GATGAACTTC AAAATAAAGT TGCTGATTGA GAAAAAGAA TTAGTAACCT	1260
TGAAATATTA CTGGAGGGG CTGATTCTGA AGATGATACT GCTGCTCTTC AAAATAAATT	1320
AGCTACTAAA AAAGCTGAAT TGAAAAAAC TCAAAAAGAA TTAGATGCAG CTCTTAATGA	1380
GTTAGGCCCT GATGGAGATG AAGAAGAAAC TCCAGCGCCG GCTCCTCAAC CAGAGCAACC	1440
AGCTCCTGCA CCAAACCAG AGCAACCAGC TCCAGCTCCA AAACCAGAGC AACCGCTCC	1500
TGCACCAAAA CCAGAGCAAC CAGCTCCAGC TCCAAAACCA GAGCAACCAG CTCCAGCTCC	1560
AAAACCAGAG CAACCAGCTA AGCCGGAGAA ACCAGCTGAA GAGCCTACTC AACCAGAAAA	1620
ACCAGCCACT CAAAAACAG GCTGAAACA AGAAAACGGT ATGTGGTATT TCTACAATAC	1680
TGATGGTTCA ATGGCAATAG GTTGGCTCCA AAACAACGGT TCATGGTACT ACCTAAACGC	1740
TAACGGCGCT ATGGCAACAG GTTGGGTGAA AGATGGAGAT ACCTGGTACT ATCTGAAGC	1800
ATCAGGTGCT ATGAAAGCAA GCCAATGGTT CAAAGTATCA GATAAATGGT ACTATGTCAA	1860
CAGCAATGGC GCTATGGCGA CAGGCTGGCT CCAATACAAT GGCTCATGGT ACTACCTCAA	1920
CGCTAATGGT GATATGGCGA CAGGATGGCT CCAATACAAC GGTTTCATGGT ATTACCTCAA	1980
CGCTAATGGT GATATGGCGA CAGGATGGCT TAAAGTCAAC GGTTTCATGGT ACTACCTAAA	2040
CGCTAACGGT GCTATGGCTA CAGGTTGGGC TAAAGTCAAC GGTTTCATGGT ACTACCTAAA	2100
CGCTAACGGT TCAATGGCAA CAGGTTGGGT GAAAGATGGA GATACCTGGT ACTATCTTGA	2160
AGCATCAGGT GCTATGAAAG CAAGCCAATG GTTCAAAGTA TCAGATAAAT GGTACTATGT	2220
CAATGGCTTA GGTGCCCTTG CAGTCAACAC AACTGTAGAT GGCTATAAAG TCAATGCCAA	2280
TGGTGAATGG GTTAAAGCCG ATTAAATTAA ATCATGTTAA GAACATTGA CATTTTAATT	2340

1197

TTGAAACAAA GATAAGGTTT GATTGAATAG ATTTATGTTT GTATTCTTTA GGTACCTATC	2400
TTATGATTTT AGGAAATGTC ATTAACAAAA CGACTCATT TCTCTAACCT GAAAAATAGA	2460
TTAGAGAAAA TGGGTTGTTT TATCTATTAT AGTTATTGTA ATGAAGTTAA GAAGAAGGTA	2520
TACTCACATC ATTCACATAA TCTGTATATT GACTATAAGT TTTAAAAAC AATTTTAAAG	2580
CTCTTCCTTG TCTTCTCTAA CCAAGCGTGT TATAATGAAT ACTGCTCAAG CGACCTTCAA	2640
TCGTGAAGCA CACACGACCT TCAATCGTGA ATAAACGAAT AGATGGGAGA CTTACCATGA	2700
GTGATAACTC TAAACACGT GTTGTCTGGG GGATGAGTGG TGCTGTGAT TCGTCGGTGA	2760
CGGCTCTTTT GCTCAAGGAG CAGGGCTACG ATGTGATCGG TATCTTCATG AAGAACTGGG	2820
ATGACACAGA TGAAACGGC GTCTGTACGG CGACCGAAGA TTACAAGGAT GTGGTTGCGG	2880
TGGCAGACCA GATTGGCATT CCCTACTACT CTGTCAATTT TGAAAAAGAG TACTGGGACC	2940
GCGTTTTTGA GTATTTCCCTA GCGGAATACC GTGCAGGGCG CACGCCAAAT CCGGACGTTA	3000
TGTGCAACAA GGAATCAAG TTCAAGGCCT TTTTGGACTA TGCCATAACC TTGGGGGCAG	3060
ACTATGTAGC GACTGGGCAT TATGCTCGAG TGGCGCGTGA TGAGGATGGT ACCGTTTACA	3120
TGCTTCGTGG CGTGGAATAT GCGAAGGATC AGACCTATTT CCTCAGCCAA CTTTCGCAAG	3180
AACAACTTCA AAAAACCATG TTCCCACTAG GACATTTGGA AAAGCCTGAA GTACGCAGAC	3240
TAGCAGAAGA AGCAGGCCTT TCGACTGCTA AGAAGAAAGA CTCGACAGGG ATTTGCTTTA	3300
TCGGAGAAAA GAACTTTAAA AACTTTCTCA GCAACTACCT GCCAGCTCAG CCTGGTCGCA	3360
TGATGACTGT GGATGGTCGC GATATGGGCG AGCATGCAGG TCTTATGTAC TATACAATCG	3420
GTCAGCGTGG CGGACTCGGT ATCGGTGGGC AACACGGCGG TGACAATGCC CCTTGGTTTCG	3480
TTGTCCGAAA AGATCTAAGC AAGAATATTC TCTATGTAGG ACAAGGATTC TACCATGATT	3540
CGCTCATGTC AACTAGCCTA GAAGCCAGTC AAGTCCACTT TACTCGTGAA ATGCCAGAAG	3600
AGTTTACGCT AGAATGTACG GCTAAATTCC GTTACCGTCA GCCTGACTCT AAGGTGACCG	3660
TTTATGTCAA AGGAGAAAAG ACAGAGGTCA TCTTTGCGGA ACCACAACGC GCGATTACAC	3720
CAGGACAGGC AGTTGTCTTT TACGATGGCG GG	3752

(2) INFORMATION FOR SEQ ID NO: 209:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3580 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1198

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 209:

TATTTATATT TTTTATCTC TGGCATACTT TGATACCTTT TTAGACTTAA AGTCTTTAAT	60
AGTGCCCTTC CACCTCTTTT TATCTATAAA GATTCTCCTA CATCATAATT CATTTTMTTA	120
TTTAAACCTT TCTGTCTTAG TTTGTCTTTA TCTTCTTCAT ACCATTTTAA GATTGTCACA	180
TAGTGGTTTT GATAGGCTT ACCACTGCTT TCCATGTATC TGGATAGTTT ATTTATCATT	240
ATATCTGTGT GTGAGTTTAA TTTTCTTTT AGATTTTAT ATTCTTCTT GCTTAACTT	300
ACATTTTGA ATTCTCCATA AAAAATGGGG GTGGACTTTT TATCTATCTC TCCCTCTCTC	360
TCTTTATCTA TCTCTATATC TTTCCATGTA ATTCCAATCT GGAGTACCTC TACTGTCTAT	420
CGGTAATTTA ATTTTGATAT CTGGCAATAC TGTGCTAGAT ATTTGATCTT TATATTCAGT	480
ATTTTAAAA GCTTGCCTAA TAATTGAAGT TAAATAGAAT GCTACTTCTT TATTCAATTC	540
TTTATTTTTT AATTTTAAAC AATGAATTTT CATATCTAGG CTTGCTTTAT ATTTATGATA	600
AAAGACTGCT CCTAAAAATG AAACAGATAT AAAATTTTCA AAAACTCTAT AATTTTATC	660
ATCTATATCT TCGTAGTAAC CTAAGATACC ATTGTCAATA TTTGTAGCAC TAATTCTAGG	720
AGTTTTTCCA TCGAGTAAAT ATCTTTTGG AATAGATGAG CCTGTTGGTA CTAACTCGA	780
TTTCCCTTTT TTTTCGGTAA TAAATATTTT TTTTATTTT GTTGTCTGAT ATTTTCCTA	840
CCTGTCTTTT GTAGGATGAG TATTTTCTAG ATTTTCYIGA ATAACTTTT ACTTGAAGTT	900
TTAGCTTTTG AACTAGTCGT TGTACTTTCT TTTTGTTTAT TATCAGTCCCT GATCTTTTA	960
ATATTGCTGT TATTTCTAT ATCCTATTTT TCATTATGA TATTTTTTA CTAAATTTAT	1020
CTTAAATCT GTGCTGTATT TGCCATTAAA AAAGTACCT CCTTTAGTTA GTTTTTGGC	1080
CTAACTTTTG AGGGTCAGTT CAAAATTTGC GACTTTTAAA TGAATTCCAA TATTCAATTA	1140
TTAAGAGTTA ACATGGTGCT TGCCAATAGG AATCATTAGA GGCGAATTGG AAATAGGGTC	1200
ACGTATAATT TTTGCTTCAA GATTAAAGAT ATCTTTAACT AGTTTATCAT TTAGTATATC	1260
TTTCAAGCTT CCCTCTGCAA CAAGTTTACC TTCTTTAATT GCAAATAGGT AATCAGCGTA	1320
TCTTGTCTGT AGATTTATAT CGTGCAAAAT CATGCAAAAT GTTGTCTTAT ATTTTGGTT	1380
TAGATCAGTC AAGAGGTCTA ATAGTTCTAT TTGATATGAG ATATCCAAGT AAGTAGTTGG	1440
CTCATCTAAA AGTAGGATAC TTGTATCTTG GGCTAGGGCT AGAGCTATCC ATACTCTTTG	1500
CCTTTGACCC CCAGAAAGTT CTTCAACTAG GTTATTTGCT AGATCTTCAA CATTTGCCTT	1560
AACCATTGAT CTGTTATTA TTTCAAGGTC ATCTTTTCCA AGACTCTTAA AAGGCTTTCT	1620
GTAGGGGAAA CGACCACGGC TTACAAGATC AGCTACTGTT ATTGATTCAG GGATTATTGG	1680
AGATTGAGGT AATATAGCTA TGTGTTTGC TAAATCTTTT TCTTTATAAG AATTAATTGA	1740

1199

TTTATTATCA AGCAATACTT CTCCCTCTAA TGGCTTTATA AGTCGAGACA AGGTTTTAAT	1800
GAGTGTGAT TTCCCACAAC CATTTGACCC AATAATAACT GATATTTTTT CTTCAGGTAT	1860
TTTTATATTT ATATTTTCCA AGATTATTTT TTCATCATAA CCGCAGGTAA GATTATTTGA	1920
CCACAGACCT TTCATTATAT ATTCCTCCTG TTCATTTTTA TTAGTAAGTA TATTAAGTAT	1980
GGTGAACCTA ACAAGCCAGT TACAACACCT ACTGGATATC TAGCTGGTAA AATATTTTGA	2040
GAGAATATGT CTGATAACAA AACTAGTAAA ATTCCAACCA ATCCAGCTAA TATGGGGCTT	2100
CTTTTCTTGC CAATATTTAA GGCTATGGGA CCAGCTAAAA AAGATATACA AGCTATTGGT	2160
CCTGTAATTG AAGTAGAAAA AGCAGTTAAA GATACAGCGC AAAAAATTAA AACAAGCCTT	2220
GAAAGCTCGG GATTTGCTCC AAGTCCGATT GCTATTTCTT CACCAAGTTC AATAATTTCT	2280
AGTCTTTTAT TAAAAATAA AACTAATATA GTAGCAATAA TACTTACTAT TAGAACAGA	2340
GGTATGTCAT CTAACCTTGT AAAAGATAAA GAGCCACTGA GCCATCTCAT AACTTCTTGT	2400
AATTCATATC TTGCTACTTT CAACAATAAA AATGAGGTGC CTGCTCTTGT GACAGCTTGA	2460
AAACCAATAC CTAATATTAT CAGTCTTGCT GCTGAAAAAC CATCTTTTTT AGCTAGTAAA	2520
AATAATATTA AAGATGATGT TAGTCCACAA GTTATTGAAA TAATCCAGT AGTTAAACTA	2580
TTTGTTTTTA ATACCAATAT GCAAAGACC GCTGCAATAG ATGAAGAACT TGTGACACCG	2640
ATTATATCAG GACTTGCAAG AGGATTTCTT AACATAGTTT GAAAGATAAA TCCTGCCAAT	2700
CCAAAAGACC AGCCAGCTAT AATTCCTGCT AATAATTTTG GTAATCTAAT TTCCATAATC	2760
GAAAACTAG CTCCAGGAAC AGTTTCACTA TTTAAGACTT TAATCAAAGT TGAAAAAGAA	2820
TAACCTTCAT CTCGATAAG TAAAATGAAA AATGATAGAC TGATTATTAT TAATAAAAAAT	2880
AGTGAGGAAA ATAGTGTTAT TCTATTTTTT CTTTTTTGAA TACCTATAAT TAAATTTTGC	2940
ATTAGTTATT AACCCCTCTA TTTTTCATAG TTACATAAAT AAGTACTGGA CCCCCGATTA	3000
TTGCAGTAAT TATCCCTACT TCAATTTTAC CTGGTTTACC TAACATACGG CCGATTATAT	3060
CACATATAAG CAAGAGCTCT GCACCTATAA AAGATGAAGA AATGGTCATT GTGCGTATAT	3120
CTTTGCTTAT AAATAAGCCA CAAAAGTGAG GAACTATAAG ACCTACGAAG CCAATAGGTC	3180
CACCAATTGC AGTAATACTT GAACATAAAA GCACACTTGC AATTATTGCA AGTGATCTTA	3240
TCCTATTAAAC ATTAAGTCCA AGACCAACAG CCATTTCATC ACCCATAGCT AAAGCGTTTA	3300
AATCTGATGA AATAAATATA GCTATCAAGT GACCTAAAAAT TATAAAGGT AGTAGGTAG	3360
ATATAGAAGA TAATGTAGCT GCTCCAAGGC TACCTATTTG CCAAAATCTA AATTTGTCTA	3420
AGACGTTATT ATTCGGTAAA ATTAAAAAAC TTACAAAACCT GCTTAAAGCC ATACTAACAC	3480

1200

AAGTTCCTGA TAAGGCAAGT TTTATAGGGG TAAGGCCTGC TTTTCCGTTA CAGCAATCGC	3540
GTATACAAAA ATTGCACTTA CTAAGCCACC AATGATTGCG	3580

(2) INFORMATION FOR SEQ ID NO: 210:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11378 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 210:

CCAAATTGCT CCACAATTAT TATGGAGTCG TCGTTTGCCA GATGGGCGTG ATATGTGTGC	60
TCAAGAATGG TTGACAGGCA AGATATTGAC CCCCTATGAT ATGAATCGTA AGCAAATCGT	120
CAATATTTTA ACCCGTCTTC ATCGCTCAGC TCCGTTGATG ACACAATTGA GTCGTTTGGG	180
CTATGCCATG GAAACACCTG TAGATTTACT ACAGTCTTG CAGGAAACGG CTCCAGATGC	240
TTTGCGTAAA AATCATTTTA TCAGTGAAGT GATGGCTGAT TTACGTCAGA CTATTCCAGG	300
ATTTAGAGAG GACCATGCGA CCATTGTCCA TGGAGATGTA CGACATAGTA ATTGGATTGA	360
GACAGATAGT GGCTTGATTT ATTTAGTAGA TTGGGATTGC GTTCGCTTGA CCGATCGCAT	420
GTTTGATGTG GCCCATATGC TCTGCCATTA TATTTCAGAA CATCAGTGA AGGAATGGTT	480
GACCTACTAC GGTTACAAGT ACAATCAAAC GGTATTAAGT AAATTGTATT GGTATGGTCA	540
ATTGTCTTAT TTGAGTCAGA TTCCAAGTA TTATATGAAC CAAGATTTAG AAAATGTCAA	600
TCGGGAGATT CATGGTTTGC GTCATTTCCG AGACAAGTAT GGAAAGAGAA GATGAGAGTT	660
AGAAATCGTA AAGGGGCAAC AGAATTACTA GAGGCAAATC CCCAGTATGT GGTCTTCAAT	720
CCCTTGGAAG CCAAGGCAAA ATGGCGGGAC TTGTTTGCCA ATGATAATCC CATTTCATGTG	780
GAAGTTGGAA GTGGAAAGGG TGCCTTTGTT TCAGGTATGG CCAAGCAAAA CCCTGACATC	840
AACTATATCG GGATTGATAT TCAAAAGTCT GTTTTGAGCT ACGCTTTGGA CAAGGTGCTT	900
GAAGTTGGAG TGCCTAACAT CAAGCTCTTG TGGGTAGATG GTTCTGACTT AACTGACTAC	960
TTTGAAGACG GTGAGATTGA TCGCTTGTAT CTGAACTTTT CAGATCCATG GCCGAAAAAA	1020
CGCCATGAAA AGCGTCGTTT GACCTACAAG ACCTTCTTGG ATACCTTCAA ACGTATCTTG	1080
CCTGAAAATG GAGAAATTCA TTCAAGACG GATAACCGTG GCTTGTTTGA GTACAGTTTA	1140
GTGAGCTTTT CTCAATATGG CATGAACTC AATGGTGTCT GGTAGATTT GCATGCCAGT	1200
GATTTTGAAG GCAATGTCAT GACAGAATAC GAGCAAAAAT TCTCAAACAA GGGGCAAGTT	1260
ATCTACCGAG TTGAGGCAGA ATTTTAAGAG ATAACCTAAA ATTAGGCTGT ACAAGTGCTT	1320

1201

TTGCTTTACA TAAGTTGGCA AACGTGCTAT ACTGATAGTA AGAATATGAA AAGTGAGGCG	1380
GGGAAATATC TTCGCCTCTT GCTTATGAGG AGGTGGACGC AATCGCAACA ATCGTAGAAT	1440
TAGTCAGAGA AGTTGTAGAA CCTGTCATAG AAGCTCCTTT TGAATCGTG GATATCGAGT	1500
ATGGAAAGAT TGGCAGTGAC ATGATTCTCA GTATTTTGT AGATAAACCC GAAGAATTAC	1560
CTTGAACGAC ACGGCAGACT TGACAGAAAT TATCAGTCCT GTCCTAGACA CCATCAAGCC	1620
AGATCCCTTC CCAGAACAAT ATTTCTAGA AATTACCAGT CCAGGTTTG AACGTCCTTT	1680
GAAAACCAAG GATGCCGTCG CTGGAGCGGT TGGAAAATAC ATCCATGTCG GGCTCTACCA	1740
AGCCATCGAT AAGCAAAAGG TCTTTGAAGG AACCTTGTTG GCCTTCGAAG AGGACGAGTT	1800
GACTATGGAA TATATGGACA AGACGCGTAA GAAAACCGTC CAAATTCCAT ACAGTTTAGT	1860
ATCAAAAGCA CGTTTAGCAG TTAATTATA GAAAAAGAAA GGATAGCTTT TGAGGATTCA	1920
AAAGTGAAGA AAACATGAGT AAAGAAATGC TAGAGGCCTT CCGCATTTTG GAAGAAGACA	1980
AGGGAATCAA AAAAGAAGAT ATCATCGACG CAGTAGTAGA GTCGCTTCGT TCCGCTTATC	2040
GCAGACGCTA TGGTCAGTCA GACAGCGTAG CTATTGACTT CAACGAAAAA ACAGGTGACT	2100
TTACAGTTTA TACTGTCCGT GAAGTTGTTG ATGAAGTATT TGATAGCCGT TTGGAAATCA	2160
GCTTGAAAGA TGCTCTTGCC ATTAATTCAG CTTATGAACT TGGAGACAAA ATCAAGTTTG	2220
AAGAAGCACC AGCTGAGTTT GGTGCTGTAG CAGCCCAATC TGCCAAACAA ACCATCATGG	2280
AAAAATGCG CAAGCAAACA CGTGCCATCA CTTACAATAC TTACAAAGAA CATGAGCAAG	2340
AAATCATGTC TGGTACAGTA GAACGCTTG ACAACCGCTT TATCTATGTC AACCTTGTA	2400
GCATCGAAGC CCAATTGTCA AAACAAGACC AAATTCCTGG AGAAGTTTTT GCTTCTCATG	2460
ATCGTATCGA AGTTTATGTT TACAAGGTTG AAGACAACCC TCGTGGTGTG AACGCTTTG	2520
TTAGCCGTAG TCATCCAGAA ATGATCAAAC GTTTAATGGA GCAAGAAATT CCAGAAGTTT	2580
ATGATGGAAC TGTTGAAATC ATGAGCGTGG CTCGTGAAGC AGGTGACCGT ACGAAGGTTG	2640
CTGTTGCTAG CCACAATCCA AACGTGGATG CTATCGGTAC AATCGTTGGA CGTGGTGGTG	2700
CTAATATCAA GAAGATTACT AGCAAATTC ACCCAGCTCG TTACGATGCT AAAAATGACC	2760
GCATGGTACC AATCGAAGAA AATATCGATG TTATCGAGTG GGTAGCAGAT CCAGCTGAAT	2820
TTATCTACAA TGCCATCGCT CCTGCTGAGG TTGACCAAGT TATCTTTGAT GAAAACGACA	2880
GCAAACGTGC CTGTTGGTT GTTCCAGATA ACAAGCTTTC TCTTGCCATT GGTGCTCGTG	2940
GACAAAACGT GCGCTTGGCG GCTCACTTGA CTGGTTACCG TATCGATATC AAGTCTGCTA	3000
GCGAATTTGA AGCCATGGAA GACGCTGCTT CAGTAGAGTT GGAAGTAGAA AACGATACTG	3060

1202

TAGAAGAATA AAAGCTGCTA GAGGAGGGAA AGATGAAAAC AAGAAAAATC CCTTTGCGCA	3120
AGTCTGTGT GTCTAACGAA GTGATTGATA AGCGTGATTT GCTCCGCATT GTCAAGAACA	3180
AGGAAGGACA AGTCTTTATT GATcCTACGG GCAAGGCCAA TGGCCGCGGC GCTTATATCA	3240
AACTAGACAA TGCAGAAGCC CTAGAGGCGA AAAAGAAGAA GGTCTTTAAC CGCAGCTTTA	3300
GCATGGAAGT GGAAGAAAGC TTTTATGACG AGTTGATCGC TTATGTGGAT CACAAAGTGA	3360
AAAGAAGAGA GTTGGGACTT GAATAAGCAA AAGATAAGTA ATCTCTTGGG GCTTGCTCAG	3420
CGAGCAGGGC GCATCATATC GGGTGAAGAA TTGGTGGTCA AGGCCATTCA AGACGGCAAG	3480
GCCAAGTTGG TCTTTCTAGC TCATGATGCT GGACCCAATC TGACCAAGAA GATTCAAGAT	3540
AAAAGTCATT ATTATCAAGT AGAAATTGTA ACCGTGTTTT CAACACTGGA ATTAAGCATA	3600
GCAGTCGGGA AATCGAGAAA GGTTTTGGCT GTAACAGATG CTGGATTTAC AAAGAAAATG	3660
AGGTCTCTTA TGGAATAGAA GAGGAGGACA TGATTGTCT AAGAAAAGAT TGTACGAAAT	3720
CGCAAAAGAA CTTGGAAGAG AAAGTAAAGA AGTTGTAGCG CGTGCAAAAG AGTTGGGCTT	3780
GGATGTGAAA AGCCACTCAT CAAGTGTTGA AGAAGCTGTC GCTGCAAAAA TTGCTGCCAG	3840
CTTTAAGCCT GCAGCTGCTC CGAAAGTAGA AGCAAAACCT GCAGCCCAA AAGTAAGTGC	3900
AGAAAAGAAA GCCGAAAAAT CTGAGCCAGC TAAACCAGCT GTAGCTAAGG AAGAGGCAAA	3960
ACCTGCAGCC CCAAAGCAA GTGCAGAAAA GAAAGCCGAA AAGTCTGAAC CAGTAAAACC	4020
AGCTGTAGCC AAGGAAGAGG CAAAACCAGC TGAGCCAGTC ACTCCGAAAA CAGAAAAAGT	4080
AGCGGCTAAA CCGCAAAGTC GTAATTTCAA GGCTGAGCGT GAAGCACGTG CTAAAGAGCA	4140
GGCAGAGCGA CGCAAGCAAA ATAAGGCGAA TAACCGTGAC CAACAACAAA ACGGAAACCG	4200
TCAGAAAAAC GACGGCCGTA ATGGTGGAAA ACAAGGTCAA AGCAACCGCG ACAATCGTCG	4260
CTTTAATGAC CAAGCTAAGA AGCAGCAAGG TCAGCAAAAA CGTAGAAATG AGCGCCGTCA	4320
GCAAGAGGAT AAACGTTCAA ATCAAGCGGC TCCACGTATT GACTTTAAAG CCCGTGCAGC	4380
AGCCCTAAAA GCAGAGCAAA ATGCAGAGTA CGCTCGTTCA AGTGAGGAAC GCTTCAAGCA	4440
GTATCAGGCT GCTAAAGAAG CCTTGGCTCA AGCTAACAAA CGCAAGGAAC CAGAGGAAAT	4500
CTTTGAAGAA GCGGCTAAGT TAGCTGAACA AGCACAGCAA GTTCAAGCAG TGTTGAAGT	4560
CGTCCCTGAG AAAAAAGAAC CTGCAGTGGT TACACGTCGT AAAAAACAAG CTCGACCAGA	4620
CAAAAATCGT GACGATTATG ATCATGAAGA AGATGGTCCT AGAAAACAAC AAAAGAATCG	4680
AAGTAGTCAA AATCAAGTGA GAAATCAAAA GAATAGTAAC TGGAATAACA AAAAAAGAA	4740
CAAAAAGGC AATAACAAGA ACAACCGTAA TCAGACTCCA AAACCTGTGA CGGAGCGTAA	4800
ATTCCATGAA TTGCCAACAG AATTGAATA TACAGATGGT ATGACCGTTG CGGAAATCGC	4860

1203

AAAACGTATC AAACGTGAAC CAGCTGAAAT TGTAAAGAAA CTTTTCATGA TGGGTGTCAT	4920
GGCCACACAA AACCAATCCT TGGATGGGGA AACAATTGAA CTCCTCATGG TGGATTACGG	4980
TATCGAAGCC AAACAAAAGG TTGAAGTGA TAATGCTGAC ATCGAACGTT TCTTTGTCGA	5040
AGATGGTTAT CTCAATGAAG ATGAATTGGT TGAGCGTCCA CCAGTTGTTA CTATCATGGG	5100
ACACGTTGAC CACGGTAAAA CAACCCCTTT GGATACTCTT CGTAACTCAC GTGTTGCGAC	5160
AGGTGAAGCA GGTGGTATTA CTCAGCATAT CGGTGCCTAC CAAATCGTGG AAAATGGTAA	5220
GAAGATTACC TTCCTTGATA CACCAGGACA CGCGGCCCTT ACATCAATGC GTGCGCGTGG	5280
TGCTTCTGTT ACCGATATTA CGATCTTGGT CGTAGCGGCA GATGACGGGG TTATGCCTCA	5340
GAATATTGAA GCCATCAACC ACTCAAAAGC AGCTAACGTT CCAATCATCG TAGCTATTAA	5400
CAAGATTGAT AAACCAGGTG CTAACCCAGA ACGCGTTATC GGTGAATTGG CAGAGCATGG	5460
TGTGATGTC ACTGCTTGGG GTGGAGATTC TGAATTGTT GAAATTTCGG CTAAATTCAA	5520
CCAAATATC GAAGAATTGT TGGAAACAGT CCTTCTTGTG GCTGAAATCC AAGAACTCAA	5580
AGCAGACCCA ACAGTTCGTG CGATCGGTAC GGTATCGAA GCGCGCTTGG ATAAAGGAAA	5640
AGGTGCGGTC GCAACCCCTT TTGTACAACA AGGTACCTTG AATGTTCAAG ACCCAATCGT	5700
TGTCGGAAAT ACCTTCGGTC GTGTCCGTGC TATGACCAAC GACCTTGGTC GTCGTGTTAA	5760
AGTTGCTGGA CCATCAACAC CAGTCTCTAT CACAGGTTTG AACGAAGCAC CGATGGCGGG	5820
TGACCACTTT GCCGTTTACG AGGATGAAAA ATCTGCGCGT GCAGCAGGTG AAGAGCGTGC	5880
CAAACGTGCC CTCATGAAAC AACGTCAAGC TACCCAACGT GTTAGCCTTG AAAACCTCTT	5940
TGATACCCTT AAAGCTGGGG AACTCAAATC TGTAAATGTT ATCATCAAGG CTGATGTACA	6000
AGGTTCTGTT GAAGCCCTTT CTGCCTCACT TCAAAAGATT GACGTGGAAG GTGTCAAAGT	6060
GAATATCGTC CACTCAGCGG TCGGTGCTAT CAACGAATCA GACGTGACCC TTGCCGAAGC	6120
TTCAAATGCC TTTATCGTTG GTTTCACGT ACGCCCTACA CCACAAGCTC GTCAACAAGC	6180
AGAAGCTGAC GATGTGGAAA TCCGTCTTCA CAGCATTATC TACAAGGTTA TCGAAGAGAT	6240
GGAAGAAGCT ATGAAAGGGA TGCTTGATCC AGAATTGAA GAAAAAGTTA TTGGTGAAGC	6300
GGTTATCCGT GAAACCTTCA AGGTGTCTAA AGTGGGAACT ATCGGTGGAT TTATGGTTAT	6360
CAACGGTAAG GTTGCCCGTG ACTCTAAAGT CCGTGTTATC CGTGATGGTG TCGTTATCTA	6420
TGATGGTGAA CTCGCAAGCT TGAAACACTA TAAAGACGAC GTGAAAGAAG TGACAAACGG	6480
TCGTGAAGGT GGATTGATGA TCGACGCTA CAATGATATT AAGATGGATG ATGTGATTGA	6540
GGCGTATGTC ATGGAAGAAA TCAAGAGATA AGATTTTTTG CTCCTTTCTT AGGTGGTGAG	6600

1204

GGACGCAAGC AAACCGATGG TTTCATTGCT TATTTTGTGAG CCTAGGGTCT CAAAAATCCC	6660
CTGTGATGGG ACTGATAAAT CAGTTCCATC ACTTTCACCA CGGCGAAAGA AGCAGATGAC	6720
TTCAAATGTA ACTTCGTTTC AATTTAAACT GAAAATCAAG AAGTTTAAAA TAGCTAGGTC	6780
TGCTGGCCTA GCTTTTGGTT CAAAGTAGAG AAAGGAATAT CATGGCAAAT CATTTCCGTA	6840
CAGATCGTGT GGGCATGGAA ATCAAGCGTG AAGTCAATGA GATTTTGCAA AAGAAAGTCC	6900
GTGATCCACG TGTCCAAGGT GTGACCATCA TAGATGTTCA GATGCTGGGT GACTTGTCTG	6960
TTGCCAAGGT TTATTACACC ATTTTGAGTA ACCTTGCTTC GGATAACCAA AAAGCCCAA	7020
TCGGGCTTGA AAAAGCAACT GGTACCATCA AACGTGAACT TGGTCGCAAT TTGAAATTGT	7080
ACAAAATCCC AGATTTGACC TTCGTCAAAG ACGAGTCCAT CGAGTATGGA AACAAGATTG	7140
ACGAGATGCT ACGCAATCTG GATAAGAACT AAAGAAGAGG GGTGCCCCCT CTTTTTTGGT	7200
GGAGGAAAAAT AGGTTGAATT TGAAATGGAA AAATATTCTT TTATAATAGA TTGAAACTAG	7260
AATAGTACGC CTCTACTTCT AAAATATTGT TAGAAATCGA TTTGACTGTC CTGATCGATT	7320
TGTCCTGTTC TTGTTTCATT TTAATATAAA AAAGGGATTC TGTATTTTTT AATGTTATCT	7380
AATTAGAAAA TGCTTTTTTT GTAGGAAATA TAATATGATA AGGTGCAAAA AAGAAATAAG	7440
GAGTTTGTAT ATGGCTGAAC AAGACTTAGC TATGCAAGTA TTGCAACAAG TGGTGAAACT	7500
ACCTGTTGTT AAGGTTGATC GTTCGAAATT TTTAGTGGAT AAGTTTCCA AAGAATTGGA	7560
TCCAAAAGAT ATTCCCTACCT TATTGGAACA AGGTCCAACG ACTCTTCTAT CTCAAGAAAT	7620
ATTAGATCGT GTAGCTAATG CTTGTATTCG GGACAATGTA TTATTAGCGA GTGGGACTTC	7680
TGTTTTGGCA GGATTACCTG GAGGGCTTGC TATGGCAATT ACCATTCCAG CTGATGTGGC	7740
TCAATTTTAT GCTTCTCTC TGAAATTGGC TCAAGAATTA GGTATATTT ATGTTATGA	7800
GGATCTTTGG GCTTCACGAG AGGAGTTGAG TGAAGATGCT CAAAATACCC TCTTGCTTTA	7860
TCTAGGCGTA ATGTTAGGGG TGAATGGAAC CGCTGCTTTG CTACGTGTTG GTAGTATAAC	7920
AATTGCCAAA CAGTAATGA AAATAGTGCC TAATAAAGCT TTAACAAAGA CGCTTGGTA	7980
CCCTATTTTG AAAAAAGTCT TAAAAATATT TGGTGTGAAT CTTACCAAGG GAGGGTTGGC	8040
CAAAGGAATG GGGAAATTA TTCCTATCTT GGGTGGTATC ATTCAGGTG GTTTAACCTT	8100
TGCAACTATG AAACCAATGG GGGAAAGCTT GCAGAAAGAA TTATCCAAGC TAGTCAACTA	8160
TAGTGAAGTT CAATATCAAG AAGATGTTGA AACAATCCGA AAAGAGGCTG AAATCATCAA	8220
AGGAGAGTAA TATGAATCCT ATCAAAGCTT TTGCTAAAAA TTATGGTAAT TACTTTTGA	8280
CCGTGCAAGG TGTAAAAGTG ATGAAAACGA TAAAGAAAGC TGACCATGTC GTTGTGGTC	8340
TGGGGAAACT TTTTATTGCC GACAAGTTAA TGGATACGGC TCGGTGGCTC ATTAAGCCAG	8400

1205

AGGAGAGAGA ATGAAATTTT TTTGGTCTTC TTGCTATTCT TTTTATCAAA CCGATTATTG	8460
GGATTGTGAA ATTCTTTTGG ATGATCATCT CTTTTCAGT CCAATTGCTG TTTTACAAGA	8520
TAGTGTTTAA GATATTGGAT TGGCTCTTTA AACTTATCTA GATGGTAATC CAAGTTGCAG	8580
AGAACTAGCA GGAAGCTCAC TGCTAGTTTT TTATTCTCTT TCCATATGGT ATAATATAAG	8640
CAGTAAATC ATTTTATACT CTTGAAAA CTCTTCAAAC CACGTCAGCT TCACCTTGCA	8700
GTATATATGT TACTGACTTC GTCAGTTCTA TCCACAACCT CAAAACGGTG TTTTGAGCTG	8760
ACTTCGTCAG TTCTATCTAC AACCTCAAAA CACTGTTTTG AGCAACCTGC GGCTAGCTTC	8820
CTAGTTTGCT CTTTGATTTT CATTGAGTAT TAGAACATAC AATGGAGGTC GTCATGGACA	8880
ATATCATCGA TGTGTCAATT CCTGTTGCAG AAGTGGTGA CAAGCATCCA GAAGTCTTGG	8940
AAATTCTAGT GGAGTTGGGT TTTAAACCCC TTGCCAATCC CTTAATGCGC AATACAGTTG	9000
GTCGTAAAGT ATCACTTAAA CAGGGTCTA AGCTAGCAGG AACTCCTATG GACAAGATTG	9060
TACGCACACT GGAAGCGAAT GGCTACGAAG TGATTGGATT AGACTAATGA CAGATGAACG	9120
GATTCATATC CTACGGGATA TTTTGTTAGA ATTGCACAAT GGCGCCTCTC CTGAGTCGGT	9180
TCAAGATCGC TTTGATGCGA CCTTTACGGG CGTGTACGCC ATCGAGATTT CCCTTATGGA	9240
GCACGAGCTG ATGAACTCGG ATTGGGGCGT CACTTTTGAA GATGTTATGG AACTCTGTGA	9300
TGTCCATGCC AATCTTTTTA AAAATGCTAT CAAAGGTGTC GAAGTTTCAG ATACTGAGCA	9360
TCCAGGTCAC CCAGTTGCTG TCTTCAAAGA AGAAAATCTG GCTCTCCGTG CGGCCTTGAT	9420
TCCGATTCGT AGATTGTTAG ATACCTATGA GTCTATGGAA GACGAGGAAA TGCTGGCGGA	9480
GATGCCGTAAG GGTTCGTGC GTCAGATGGG ACTTGTGGGT CAATTGACA TCCATTACCA	9540
ACGTAAGGAA GAACTCTTCT TTCCTATCAT GGAGCGCTAT GGACACGATT CACCTCCCAA	9600
AGTTATGTGG GGAGTGGATG ATCAGATTAG GGAATCTTT CAAACAGCTC TAACGACAGC	9660
CAAGTCACTA CCAGAAGTGT CAATTAGCAG TGTAAGGAA GCTTTGAAG CTTTTCGAC	9720
AGAGTTTGAA AGTATGATTT TCAAGGAAGA GTCCATCCTC CTCATGATTC TCCTTGAGTC	9780
TTTACTCAG GATGACTGGC TTCAGATTGC GGAGGAGAGC GATGCCTATG GCTATGCCAT	9840
CATCCGTCG TCAGAGAAAT GGGTGCCAGA ACGACAGAGC TTTATTGAGG AAAAGATTGC	9900
AGAGGAGCCT GTACAGCTAG ATACGGCAGA AGGTCAAGTT CAACAAGTCA TAGATACGCC	9960
AGAAGGCCAT TTTACCATTA CCTTTACCCC TAAGGAAAAG GAAGCTGTGC TGGACGCCA	10020
TAGTCAACAG GCTTTTGGA ATGGCTATCT TTCAGTCGAG CAGGCCAATC TCATCTCTCA	10080
TCATCTCCCT ATGGAGATTA CCTTTGTCAA TAAAGAAGAT ATTTTCCAGT ATTACAATGA	10140

1206

CAATACGCCA GCTGATGAGA TGATTTTCAA ACGGACGCCG TCCCAAGTCG GGCGCAATGT	10200
CGAACTCTGC CATCCGCCTA AGTACTTGGA CAAGGTCAAA ACTATCATGA AGGGGCTTCG	10260
TGAGGGAAGC AAAGACAAGT ATGAAATGTG GTTCAAGTCT GAGTCGCGAG GTAAGTTTGT	10320
CCACATCACC TATGCTGCAG TACACGATGA AGACGGAGAA TTCCAAGGAG TGTGGAGTA	10380
TGTTCAAGAT ATCCAGCCCT ACCGTGAGAT TGATACGGAC TATTTTCGTG GATTAGAATA	10440
AGGAGAAAAA ATGAGTTACG AACAGAATT TATGAAGGAA TTTGAAGCTT GGGTCAATAC	10500
CCAAATCATG ATTAACGACA TGGCGCACA GGAAGCCAA AAAGTTTACG AAGAAGACCA	10560
GGACGAGCGT GCCAAAGATG CCATGATTCG CTACGAGAGT CGCTTGGATG CTTATCAGTT	10620
CTTGCTTGGT AAGTTTGAAA ACTTCAAAGT AGGCAAGGGA TTCCATGATT TGCCAGAAGG	10680
CTTGTTTGGT GAGCGAAATT ATTAACGAG AAAGATTCTT GATTTTTCAC TAAAATCTTG	10740
ATAGAATGTT TATGTTAAAT CCTTGTCAGA GCAGGGAATT TTTATTGAAA GGATTTTATC	10800
ATGTCAAAGA AACTCAATCG TAAAAACAA TTACGAAATG GCCTCCGTCG CGCAGGTGCC	10860
TTTTCAAGTA CGGTGACTAA GGTGTAGAT GAGACAAAAA AAGTCGTGAA GCGTGCAGAA	10920
CAGTCAGCAA GCGCAGCTGG TAAGGCTGTT TCTAAAAAAG TTGAACAAGC AGTAGAAGCT	10980
ACCAAAGAGC AAGCTCAAAA AGTAGCTAAT TCTGTAGAAG ATTTTGCAGC AAATTGGGT	11040
GGACTTCCAC TTGATCGTGC CAAGACTTTC TATGATGAAG GAATCAAGTC TGCTTCAGAT	11100
TTCAAAAACT GGACTGAAAA AGAACTCCTT GCCTTGAAAG GAATCGGCC AGCTACCATC	11160
AAGAAATGA AAGAAATGG CATCAAGTTC AAGTAATTTT TCTTGAGCCT TGCATTTCCG	11220
AAAAATCTT GCTACAATAG AGCCATTAGA GGTGTTTGA ATCCCACATT TTACAGAAAG	11280
TGGCGGCGCT GAGAAGTCCA CAAATGTGTC AAAACTGGTT GCTAATGGAT GAAAAATGA	11340
AATAAAAGTG TCTTTTGTCT TAAAGACGA GAGTTGCC	11378

(2) INFORMATION FOR SEQ ID NO: 211:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 211:

CCGCGAGCCA CGCGGAATTT GCTGCGGTA TTCATCAGTC AGGATCTATG ATCTTTGGTG	60
AACAAGAAAA GGTTCAGTT GTGACCTTTA TGCCAAATGA AGGTCCTGAT GATCTATACG	120
CTAAGTTTAA TAACGCTGTT GCTGCATTTG ACGCAGAAGA TGAGTTCTA GTTTTGGCTG	180

1207

ACCTTTGGAG TGGTTCTCCA TTTAACCAAG CTAGTCGCGT GATGGGAGAA AATCCTGAGC	240
GTAAGTTTGC CATCATCACA GGACTTAACT TACCGATGTT GATTCAAGCC TACACAGAGC	300
GCCTCATGGA CGCTGCTGCA GGTGTAGAAA AAGTCGCTGC TAATATCATT AAAGAAGCCA	360
AAGATGGCAT CAAAGCTCTT CCAGAAGAGC TAAATCCAGT CGAAGAAGTT GCAAGCGCTG	420
CAGCTGCTCC AGTTGCCCAA ACTGCTATCC CAGAAGGAAC TGTTCATCGGA GACGGTAAAT	480
TGAAAAATCA TCTTGCCCGT CTTGACACAC GTCTACTTCA CGGTCAGGTT GCAACTGCTT	540
GGACTCCAGA TTCAAAAGCA AATCGTATCA TCGTTGCTTC AGATAACGTG GCTAAAGACG	600
ACCTTCGTAA AGAATTGATT AAACAAGCAG CTCCAGGTAA TGTCAAGGCT AACGTGGTTC	660
CAATTCAAAA ACTGATTGAG ATTTCAAAAG ACCCACGTTT TGGAGAAACA CATGCCCTTA	720
TCTTGTTTGA AACACCTCAA GATGCCCTTC GTGCCATCGA AGGCGGCGTG CCAATCAAGA	780
CTCTTAATGT TGGTTCTATG GCTCACTCAA CAGTAAAC ATTGGTCAAT ACCGTTTGT	840
CTATGGACAA AGAAGACGTT GCTACATTTG AAAAAATGCG TGAAGGCT GTGAATTTG	900
ATGTCCGTAA AGTACCAAT GATTCTAAAA AAGATTTGTT TGAAGGCT AACAAAGCCA	960
ATGTCAATA AGCCATTATT TATGAAAGGA TTTTAAACAT GTCTATTATT TCTATGGTTT	1020
TAGTAGTCGT TGTAGCCTTC TTTGCAGGTC TTGAAGGCAT CCTCGACCAG TTCCAATTTT	1080
ACCAACCACT TGTAGCCTGT ACCCTTATTG GGCTTGTAAC AGGTCACTTG GAAGCAGGGA	1140
TTATCCTCGG TGGATCGCTT CAAATGATTG CCCTTGTTG GTCAAATATC GGTGCTGCTA	1200
TCGCTCCTGA TGCTGCACCT GCTTCTGTCG CTGCTGCCAT TATCATGGTT CTTGGTGGTG	1260
ACTTTACCAA GACTGGTATC GGTGTTGCCC AAGCGGTTGC TATCCCTCTT GCTGTAGCTG	1320
GACTTTCTT GACAATGATT GTTCGTACAA TTTCAGTTGG TTTGGTTCAT ACTGCAGATG	1380
CTGCCGCTAA AAAAGGTGAC TTCGGCGCTG TGGAGCGTGC GCATTTTCATC GCGCTACTTT	1440
TCCAAGGACT TCGTATCGCG CTCCTGCAG CTCTTCTCTT TATGGTACCA ACTGAAACTG	1500
TACAAAGTAT CCTTAGTGCC ATGCCAGACT GGCTCAAAGA TGGTATGGCT ATCGGTGGTG	1560
GTATGGTCGT TGCCGTTGGT TACGCCATGG TTATCAACAT GATGGCAACT CGTGAAGTAT	1620
GGCCATTCTT CGCTCTTGGT TTCGTTCTCG CTGCTGTGTC AGATATTACT CTAATCGGAT	1680
TCGGTGCTAT CGGCGTTGCT ATCGCTCTTA TCTACCTTCA CCTTTCTAAA ACTGGTGGAA	1740
ATGGTGGCGG AGGAGCCGCA ACTTCTAACG ACCCAATCGG CGATATCCTA GAAGACTACT	1800
AAGATAAGAA AGGACTGAAA ACATCATGAC TGAAAAACTT CAATTAACTA AATCAGATCG	1860
TAAAAAAGTT TGGTGGCGTT CAACCTTCTT ACAAGGCTCT TGGAACCTTG AACGGATGCA	1920

1208

AAACTTGGGC TGGGCTTATA CACTCATTCC AGCTATCAAA AAACCTCTATA CTAAAAAAGA	1980
AGATCAAATC GCTGCTCTTG AGCGTCACCT TGAGTTCTTC AACACTCATC CATACGTAGC	2040
TGCTCCAGTC ATGGGGGTTA CTCTTGCGCT TGAAGAAGAA CGTGCTAACG GTGTGGAAAT	2100
CGATGACGCT GCTATCCAAG GGGTTAAAAT CGGTATGATG GGACCTCTTG CTGGTATCGG	2160
TGACCCAGTA TTTCTGGTTA CAGTACGCCC AATCCTTGGA TCTCTCGGTG CTTCACTTGC	2220
CCTTACTGGC AATATCTTGG GGCCACTCCT CTTCTTTGTT GCATGGAACT TGATTTCGTAT	2280
GTCATTCTTG TGGTATGTTT AAGAGATTGG ATACAAGGCT GGATCAGAAA TCACTAAAGA	2340
TATGTCTGGT GGTATCCTTC AAGATATCAC TAAAGGAGCT TCTATCCTTG GGATGTTTAT	2400
TCTTGCTGTC CTTGTTCAAC GCTGGGTAAA TATTAAATTT GCTTTTCGATG TTTCTAAAGT	2460
TCAACTAGAT GAAAAGGCTT ATATCCATTG GGATAAATTG CCAGAAGGGT CTAAAGGTAT	2520
CCAAGAAGCA TTCGCACAAG TAGGACAAGG ATTGTCTCAA ACTCCTGAAA AAGTTACTAC	2580
TTTCCAACAA AACTTGGATA TGTTGATTCC TGGATTATCA GGACTIONTCC TTACTIONT	2640
TGTCATGTAC TTACTTAAGA AAAAAGTATC TCCAATCACT ATTATCCTTG CCCTCTTCGC	2700
AGTGGGTATT GTGGCACATG TTCTTCACAT CATGTAATCA AGCAACTAAA AAGGAACCAG	2760
GTTCTAAAAT CTGATTCTTT TTTTCTATGC TTTTATTTCAG CCAAGGCTCC CATTGGATCC	2820
CATGGTGCAA GTACGATTGG TTCTGCTCCA TAGGCAGCTT GTTCTTCTGC TGTCAGCAAT	2880
TCCTTACGAA CAACGATTTG GTATGTGTAT TCGTCCATCC AAGCGTCTGA GGCAACAAAG	2940
TAACCATCTG TACCGACCTT GTCTCCCAT GAGTTTTCAG CCTTCCACTT GGTGATTATA	3000
CCATTTTCGT CCAAGTCAAC ACCTGTCAAG ACCATGGCGT GGGTCATCAA GCTTTCATA	3060
TAGTCCAAAC GTCCAGCCTT GTCTTGAGTA AGTTTAATGT CCATGCTTGA TTCAAAGTCA	3120
TAAACATCTG TCGCAAGGAT GCCAGCTTAC GGTGCTGAG CTGGCCGACA TCAGAACCAA	3180
ACCAACACGT CTCACCTGCT TGCATTTGGG CAATCGCCAA TTCTTTCAAG CGCTCCATTG	3240
GAACGTTGAT GTAGCGAAT GCACGGCTAC CAACCACATT CCCCACATC TCAACTGTGT	3300
AAGATTTTCC GTAAGGTTTA TCAGCAGTTG GAGCATTGAT AACAGAAACG TAGTCTTCTA	3360
AAGGAAGATT GACATATTTC TTGTAAAAT CTTGTGGTGT GATTCTTTT TCACTTTGT	3420
AGTTGTTATC TTTATCGCGA TAAGCAAAGT CAAACTTGCG TGGTGGAAGT CCTAATGACA	3480
TAGCAAGAAA GTTAAAGATT TCTTGCAAGA GGTCTTCTTT CTTAGCTTGA ACAGTCGCTT	3540
GATCTGCACC AGAAACAAGC AAGTCACGCA AGATTGAGC ATCTTGACGA AGCAATTTAT	3600
TAAGGATCGC ATTTAGCTCA CGACTGCTGC TAGATGAAAC AGACTCAGGA TAACTGACT	3660
TAGGCACGAC ACCGTATTTT TCAAAGAGGG AAACGACCAT ATCCCATTGA CCGCCATCTT	3720

1209

GTGAGGTGT TTGGAGTAAG AAGCTAACT GCGGCTAGTC AATTCTTGGT CTGAAGTCGC	3780
AATGACTTGC TCCAAGAACC AGTTTGATTT CTCATACTTA TCCCAGAAGA AAGTGTTGGC	3840
TTGTGACAAC TCAAAGTTCT CCAATTGTGA TTGCGAGATG AGTTTGTGGC GGAAGGTGTT	3900
GAGAGCCGCA AACATCCAGC AACGACCAGA CGCTTCTGG TTAGTGACCT TGTCTTGGT	3960
TAAATCCAAT GAGAAAACAG GTGTGTTGTC TACATGGCTT TGGCGACGT CCAGAGCTGC	4020
AAAAATTCCG TTGTGGCTGG CAGCATTTTC AATCGCTTGG TATTTTACAT TTGCTTCATA	4080
GTGGCAAAT AGTTTATCAG TAAATGATTC TTGAATCGCG TTCATAGATT CCTCCTTTA	4140
GTCTACAGTG TATTGG	4156

(2) INFORMATION FOR SEQ ID NO: 212:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3902 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 212:

AAAAACAACA AAATAAAACA AAAACAAAAA TATCGAGGTT TATTTTCAAA ACTTTCGATA	60
TTTTTATTAA GTTATTATTT TGTGTTTCT AGTTTACTTT TTGATGGTTA AGAGTGGTGG	120
AGAATTATAC TCAATGAAAA TCAAAGAGCA AACTAGGAAG CTAGCCGCAG GCTGTACTTG	180
AGTACGGCAA GCGGAAGCTG ACGTGTTTG AATTGATTT TCGAAGAGTA TTAGTGCAAA	240
CCGTAGTTGT AGTCATCATC TTGCATGGCT TCAACTTCGC CAAGAAGGTA ACCATTTCG	300
ACTTGAGAGA AGAAGTCATG GTTGAAGTT CCTGTTGAAA TACCGTTCAT AACGATTGGG	360
TTGACATCTT CAGCTGAATC TGGGAAAAGT GGATCTTGTC CCATGTTTAT GAGAGCTTTA	420
TTGGCATTGT AGCGAAGGAA GGTTTTAACC TCTTCAGTCC AACCAACACC GTCATAAAGA	480
CTCTCTGTGT AGCCTTCTTC ATTTTCATAA AGAGTATAGA GTAGGTCGTA CATCCATTCT	540
TTGAGTTTTT CTGCTCTTC TTCAGGTAAT TCATTGAAAC CAAGTTGGAA TTTGTAACCA	600
ATGTAGGTTC CGTGAACAGA CTCGTCACGA ATAATCAATT TAATGATTTC TGCAACGTTG	660
GCAAGTTTGT TGTTACCGAG ATAGTAGAGG GGAGTGAAGA AACCAGAGTA GAAGAGGAAG	720
GTTCGAGGA AGACGCTGGC AACTTCTTT TCAAGTGGGC TGCCGTTTAG GTAGATTTCG	780
TTGACAATCT CAGCCTTCTT TTGTAGGTAA GGATTGGTAT TGGTCCATTTC GAAAATTTCT	840
TCAATCTCAG CCTTAGTATT CAAGGTAGAA AAGATTGATG AGTAAGATTT AGCGTGGACA	900

1210

GATTCCATAA ATTGGATGTT ATTGAAGACA GCTTCCTCAT GTGGTGACG GATGTCTGCG	960
CGAAGGGCTT GAACCCAGT TTCAGATTGC ATAGTGTCAG GAAGGGTTAA ACCACCAAAA	1020
ACTTTTCCGA CCAAGTCTTT CTCTTTGTFA GATAGCTTTC TCCAGTCATC CAAGTCGTTT	1080
GATAAGGGAA TACGTGTATC GAGCCAAAAT TGCTCCGTCA GTTTTCCCA AGTTGATTTG	1140
TCGATGACAT CTTCCGATGC ATTCAGTTA ATGGCTTTGT AGTAAGTTTC CATTTAAAT	1200
CTCTTCTGT GTTTAGTATT GCGAACTCAC AATTATTTCT ACTTTACCAT AATTCTATAG	1260
GAGTATCGCA CAAAAGTCG GAAGCCCGAC TTTTAAAATG TTACATAAAT TATGTTATGA	1320
CATAGTAGAT TTGATTTTAT CAGTGCTGCT TAGGGAAAA TAGTGTTCT ATGCTAGAAA	1380
CTAAATCACA CAGCTTTCAC ATTGGTTGGC GCCGACTTCT CCACCGTCAT CTGTAAAGGT	1440
ACGGACGTAG TAGATAGACT TGATPCCCTT GTTAAAGGCA TAGTTACGAA GGATGGACAA	1500
GTCACGTGTC GTTTGTTTAT TTTCCCTCTT CCATTCGTAA AGGCCTTTTG GAATGCTACT	1560
GCGCATGAAG AGGGTGAGTG AAAGTCCTTG ATCCACGTGT TCAGTCGCAG CAGCGTAAAC	1620
ATCGATGACT TTACGCATAT CCATATCGTA GGCAGAAGTG TAGTAAGGAA TGGTTTCTGT	1680
AGACAAGCCA GCAGCAGGT AATAGATTTT ACCAATTTTC TTCTCTTGGC GTTCTTCGAT	1740
ACGTGCGTA ATCGGGTGA TAGAAGCAGA AACGTCGTTG ATATAGCTGA TAGAACCATT	1800
TGGCGCTACA GCAAGGCGAT TTTGGTGGTA AAGACCATCT TCTTGAACCT TGTCGCGAAG	1860
TTCAACCCAA TCAGCAACAC CAGGGATAAA GACATTTTTC AAGAGTTCTT TAACACGGTC	1920
TGATGTTGGA ACAAATTCAC CAGTTACATA CTTGTCAAAG TAACTTCCGT TAGCATAGTC	1980
TGATTTTCA AAGTTGTGGA AGGTAATACC ACGTTCACGT GCAATATTGT TTGACTCTAC	2040
CAAGGTCCAG TAGTTCATAA GCATAAGTA GATGCTTGTA AATTCAACAG ACTCAGGTGA	2100
ACCATATTCA ATGAGTTGTT GGGCAAGGTA GCTGTGCAGT CCCATGGCAC CGAGACCAAA	2160
GGTGTGGCT TGGCTATTTT CATGGTCAAT CGTTGGTACA GCTACGATAT GTGAACATC	2220
TGTAACGAAA GTAAGGGCAC GAACCATAGC ACGGATAGAA CGACCAAAAT CAGGTGAAGT	2280
CATCATGTTA ACCACGTTGG TTGAACCCAG GTTACATGAA ACATCTGTTC CCATTTGAAG	2340
GAATCTTGA GCATCGTTGA TCAAGCTGG TTCTTGAAGT TGAAGAATCT CAGAACACAA	2400
GTTACTCATG ATAATCTTTC CATCAACAGG ATTTGCACGG TTAGCCGTAT CGATGTTGAC	2460
TACATAAGGA TAGCCAGACT CTTGTTGCAA TTTAGAGATT TCAGTTTCCA AATCCCGCGC	2520
CTTGATTTT GTCTTGCGAA TATTTGGATT TGCGACCAAT TCATCGTATT TTTCAGTAAT	2580
GTCCATGTAA TTGAATGGCA CACCGTATTC TTTTCTACA GAGTAAGGGC TGAAGAGGTA	2640
CATTTCTTCA TTTTACGAG CCAATTCGTA GAATTTATCA GGTACTACAA CACCAAGTGA	2700

1211

TAGAGTCTTG ACACGTA	TTTCATCAGC GTTTCTTTC	TTAGTTGAAA GGAAAGCGAT	2760
GATATCTGGG TGAAAGACGT	TGAGGTAGAC AACACCAGCA	CCTTGACGTT GCCCAATTG	2820
GTTGGAGTAA GAGAAGCTGT	CTTCAAAAAG CTTCATAACA	GGAACGACAC CTGAAGCAGC	2880
TCCTTCATAG CCTTGTATAG	GTGCACCAGC TTCACGAAGG	TTGCTGAGGG TAATTCCCAC	2940
ACCACCACCA ATACGTGAAA	GTTGAAGAGC TGAGTTGATA	GAACGCCCGA TAGAGTTCAT	3000
ATCATCCGTC ACTTGGATTA	GGAAACAAGA TACCAACTCC	CCACGACGAG CACGTCCAGC	3060
ATTCAAGAAG GAAGGAGTAG	CAGGTTGGTA GCGTTGGTGG	ATGATTTTCAT TGGCAATATC	3120
GATTGCAACA GCTTCATTCC	CATCAGCGAA ATAAAGGGCA	TTGAAGAAGA CACGGTCTTC	3180
CATATTTTCA AGATAGTATT	CACCGTCATT AGTCTTTAAG	GCATATTGAT TGTAAAATTT	3240
ATAAGCTGCC ATGAATGACT	TGAATTGGAA GTTTTGGTCT	TTGATAAATT GAGCTAATTC	3300
TTCCAAGAAC TCTGGACGGT	ATTTCTTGAT AAAGGCTGTT	TCGATGTAGT TGTGTTCAAT	3360
GAGGTAATTG ATTTTGTCTT	TGATTGAATC AAAAACCATA	GTGTTTGGAA CTACATTTTC	3420
TTTAAAGAAA GCATCCAAGG	CTTCCTTGTC TTTATGAAGC	ATGATTTGTC CATTAACAGG	3480
ACGGTTAATT TCGTTATTAA	GACGGAAGTA AGTCACGTCT	TCAAGATGTT TTAATCCCAT	3540
AAAATTTCCC TTATCTAATT	ACAAAAGAAA GGCTTCTAAG	TTAGCCCTAA AAGCAGTTTC	3600
TTCTGGATGA TGTACTAAGA	TTATGCTAAT TGTTTCAGTT	TTCTGGTTG GAAACCTGAA	3660
AAGACTTCAG TTGGTGTTTG	GATAACAGGA GCTGCGCTAA	AACCGAGCTC TTTAACTTGA	3720
TCGACGFACT CAGGTTGCTC	ATCAAGATTG ATTTACGAT	AAGAGACATT ATTACTGTCC	3780
AAGAAACGCT TGGTCATTTT	ACATTGGACA CAATTGTTTT	TAGAATAAAC GGTACCATT	3840
GTGTAATCC TCTTCAAAT	TTAATACTAT CTTAGTATAT	CAGAAAATAA AATTTGTCTG	3900
GG			3902

(2) INFORMATION FOR SEQ ID NO: 213:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2456 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 213:

TATTGAAGCT ATTGTAGACT	ACAAAGATAA GGATTTGCAG	TTAGTAGGCG GTGAGACTCA	60
CTGATAACCT AAAAAGGATA	GTCAATTATG CTTGTTTACT	AACTATTAAC TATGCTAAAT	120

1212

CAATTGAGGT TGTTCACATA AAACCTCTATA TCAGAGAAGC CTGATATAGA GTTTTTCCTT	180
GCTAGTTTTA GGATTTTTTT GTAAAATAGA AAAAGTGAAG AGAGGTATGA AATGAGCAAG	240
AAAGATAAAA AAATCGAAAT TCAAGTAGCG GATGCCAAAG TTAATGTTGG TAAAGACAGT	300
TTTGAAGGTT ATACATTGAC TATCGGTAAA AAAGTTATCG GAGAAATTGC CGAATTAGAC	360
GGACAATTG CCATTATAAA GAATGGGAAT GTCGATAGTT TTTATAAAAA ATTGGAAAAA	420
GCTGTGGAAT TTTTGATTGA AAATTATAAT TTAGCAAAAT AAGTCTTGTT TTTTGAAAT	480
TTTCATGATA TAATAGTCCA TGTGATTGT AGGAGAGATA GCGAAGAGGC TAAACGCGGC	540
GGACTGTAAA TCCGCCCCCT CGGGTTCGGG GGTTCGAATC CCTCTCTCTC CATTCATTA	600
ATGGGGTATA GCCAAGCGGT AAGGCAAGGG ACTTTGACTC CCTCATGCGT TGGTTCGAAT	660
CCAGCTACCC CAGTCTTAG GTAATAATCA AGATAGAAAG CAAAATATCT TAGGGTATTT	720
TATTTTTATA ATTGAAAGAC GTGAATGATA TGAACATGTC CTTGCGGGTG CTTAGGAAAA	780
AAATTATAAG TATGTCAAGT TTAAGAAAAA CTTGATTGTT GGAGGATTTT TTAGATGAAC	840
GAATTTGAAG ATTTGCTAAA TAGCGTTAGT CAAGTTGAGA CTGGTGATGT TGTAGTGCT	900
GAAGTATTGA CAGTTGATGC GACTCAAGCT AACGTTGCAA TCTCTGGAAC TGGTGTTGAA	960
GGTGCTTGA CTCTTCGGA ATTGACAAAC GATCGTGATG CAGATATCAA TGACTTTGTT	1020
AAAGTAGGAG AAGTATTGGA TGTCTTGTA CTTCTGCAAG TAGTTGGTAA AGATACTGAT	1080
ACAGTTACAT ACCTTGATC TAAAAACGC CTTGAAGCTC GCAAAGCATG GGACAACTT	1140
GTTGGTCGCG AAGAAGAGT TGTACTGTT AAAGGAACGC GTGCCGTTAA AGGTGGACTT	1200
TCAGTAGAAT TTGAAGGTGT TCGTGGATTT ATCCAGCTT CAATGTTGGA TACTCGTTTC	1260
GTACGTAACG CTGAGCGTTT TGTAGGTCAA GAATTTGATA CTAATCAAA AGAAGTTAAC	1320
GCTAAAGAAA ACCGCTTCAT CCTTTCACGT CGTGAAGTTG TTGAAGCAGC TACTGCAGCA	1380
GCTCGCGCTG AAGTATTCGG TAAATTGGCT GTTGGTGATG TTGTAAGTGG TAAAGTTGCT	1440
CGTATCACA GCTTCGCGC TTTCGTCGAC CTTGGTGGTG TTGACGGATT GGTTCACTTG	1500
ACTGAATTGT CACATGAACG TAATGTATCA CCAAATCAG TTGTAAGTGT TGGTGAAGAA	1560
ATTGAAGTGA AAATCCTTGA TCTTAACGAA GAAGAAGGAC GTGTATCACT TTCACTTAAA	1620
GCAACAGTAC CAGGACCATG GGATGGCGTT GAGCAAAAAT TGGCTAAAGG TGATGTAGTA	1680
GAAGGAACAG TTAAACGTTT GACTGACTTC GGTGCATTTT TTGAAGTATT GCCAGGTATC	1740
GATGGACTTG TTCACGTATC ACAAATTCA CACAAACGGA TTGAAAATCC AAAAGAAGCT	1800
CTTAAAGTTG GTCAAGAAGT TCAAGTTAAA GTTCTTGAAG TTAACGCAGA TGCAGAACGC	1860
GTGTCACTTT CTATTAAAGC TCTTGAAGAA CGTCCAGCCC AAGAAGAAGG AAAAAAGAA	1920

1213

GAAAAACGTG CTGCTCGTCC ACGTCGTCCA AGACGTCAAG AAAAGCGTGA TTTCGAACTT	1980
CCAGAAACAC AACAGGATT TTCAATGGCT GATTTGTTTG GTGATATCGA ACTTTAATCA	2040
AATTGAAAAT TCACAAAATC CTTTGTTTAC TAAACAAGGG ATTTTCTCTGG CTCTTTGTCA	2100
ACTGTAGTGG GTTGAAGAAA AGCTAAGCTC GAGAAAGGAC AAATTTTGTC CTTTCTTTT	2160
TGATATTCAG AGCGATAAAA ATCCGTTTTT TGAAGTTTTC AAAGTTCGGA AAACCAAAGG	2220
CATTGCGCTT GATAAGTTTG ATGAGATTAT TGGTCGCTTC CAGTTTGGCG TTAGAATAGT	2280
GTAGTTGAAG GGTGTTGACA AGCTTTTCTT TATCTTTGAG GAAGTTTTTA AAGACAGTCT	2340
GAAAAATAGG ATGAACCTGC TTAAGATTGT CCTCAATAAG TCCGAAAAAT TTCTCCGGTT	2400
CCTTATTCTG AAAGTGAAAC AGCAAGAGTT GATAGAGCTG ATAGTGGTGT TTCAGG	2456

(2) INFORMATION FOR SEQ ID NO: 214:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10974 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 214:

AAATAGGATA TAGAGACATC CTTCTGATCT GCTTTTACA AAGTCCAATT ATATGCGGAT	60
CTATACCTCC ACAATGTCCA TTATTATmCC TAACTATAAT ATGAGCCGAA AACACTATAT	120
CCTTAATGTC TCCATATCCA TCAGGGATAT TAATATTAT TTTCCACAA CTATATTGCA	180
TTGTAACCAT CTCCTTAAC GACGCATTAT GATATTGAT AGAGAAATTT TTATGAATAA	240
CTCAATAATT TTATAGTAAA TCATGCTTAT ATCTCAAAGA TACCTATTTT ATCTTGCTCTC	300
GACCTTCTCC AAAGAATTGC TATAATACTA TTACAAATCC ATCTGCACTA CACTTCAAAT	360
TTTAGCACTG TATAAAAACG TTTCAATACA CTAACCTCAA GAAAACCTCC ACTATTAATT	420
GAAAAAATG ATAGAGATAA ATTAATAATC TATATTGAAA CTCATCCCGA TGCTTATTTG	480
ACTGAAATAG CTGCTGAATT CAACGTGCTT CCAACAATA TTCATTACGC TCTAAAGGCT	540
ATGGGATATA GTCTAAAAA GAGCCGTACC TACTGCGAAC AAGACCCAGA AAAAGTAAAT	600
CGGTTCTTAA AAGAATTGAA TCACTTAAGC TACCTGACTC CTATTTATAT TTATGAGACA	660
GGGGTTGAGA CCTATTTTAA TCTCGAATAT GATCGAGCCT TGAGCAGGCA GTTAGTCTCT	720
CTGGAAGAAG ATATAATTAT TTGAATTAA GATCGAGACA CGCACACCAG AGATTGCGAT	780
ACTGTTATAG AAGTACTAAT GCCCTTTTTT GTTCAATAT ACTATGGCTC CGATGACCTA	840

1214

TAAAGATACG ATGACGAGTG ACTTTTTCGA AGCTTGCTTC CAAAAATTCT TACTACCTAC	900
TTTAGATACA CCATCCCTTA TCATTATGGA CAATGCAAGG TTTCACAGAA TGAACATGTG	960
TAAGGAGCAG GGCATAGACT GTTACCACCTT CCTACCTATT CACCCGAGTA TAATCCCATT	1020
GAGAAAATAT GGGCTTACAT CAAAAACATC TCAGAATAAT ATTGTCAAAT TACGATGCTT	1080
TTCTTGAGGC ACTTTTGTCC TATTCTTGTT TCAGCCGACT ATACTCCGTT ATTGGGCAGC	1140
TACGGAACAG TCGATGGGAC GATGGGGGGA CATAAAAAAA TCCTCCAGTT TTGTTTTTTA	1200
TAACAGTATA CTGGAGAATT GACAATCTCG GTAGATACCT CGTTATAGCG CGGTTACTTA	1260
TTAGGCAGTT ACAAACAAC TGTGAACAGA AAACATTCCA GAGTCAGACA AGACTTTGGA	1320
ATGTTTTGGC TCTATAATTT CTGTAGTGGG TAATCCCACC CCAGGAATTA TAGGGTCGTT	1380
TCTTGTAAG AAAAAGCCCC ATATGACCTA TAATGAAAAG CGTCTAACCA ACTCATTAGA	1440
AAGGGTTCAT ATGGAACAAC TTAAGAATAC CACAGATTG CTCGGATTGG AAGACAAAAA	1500
TATCAAAATC TTGTCTGTTT TGAATACCA AACCCATCTA GTCGTTCCAGG CAAAGTTGGA	1560
TTCCCCCGCT CCTCCTGTGC CTCATTGTCA AGGGAAGATG ATCAAATACG ACTTCCAGAA	1620
AGCCTCTAAA ATTCCGCTTC TCGACTGTCA GGGTTTACCC ACGGTACTGC ATCTCAAAAA	1680
GCGCCGCTTT CAGTGAAGA ATTGCCTTAA GGTGGTCGTT TCTCAAACAT CCATTGTCAA	1740
GAAAAATGC CAGATTTCCTA ACATGGTGAG ACAAAAAATC GCTCAGCTCC TCCTTGAAAA	1800
GCAGTCTATG ACTGAGATTG CCCACAGATT GCGGGTCTCA ACTTCCACCG TCATCCGAAA	1860
ACTGAGGGAA TTTAAGTTTG AAACCGATTG GACCAAGTTG CCAAAGTTA TGAGTTGGGA	1920
TGAGTATAGC TTCAAAAAGA GCAAAATGAG CTTTCATGCC CAAGATTTTG AGTCCAAATC	1980
CATCCTCGCA ATTTTAGACG GCGGAATCA TGGGGTGATT CGAAACCATT TCCAACGCTA	2040
TCAGAGAGAG GTTCGGGAGC TGGTCGAGGT CATCACCATG GACATGTACA GCCCTTATTA	2100
TCGGCTCGCT AAGCAACTCT TTCCAAAGGC GAAGATTGTT CTTGACCGCT TCCACATTGT	2160
CCAACATCTG AGCCGAGCTA TGAACCGAGT ACGAATCCAA ATCATGAACC AATTTGACCG	2220
AAAATCCTTG GAGTATCGGG CGCTCAAGCG CTTTGGAAAC CCTCGCTTTT TCGTTTCTAG	2280
GTCGGGGCTA AATCAGTCCA CTGGACTGAT TTAATACACC AGTATAGCTT CAAGCTCTGT	2340
CAGAAACGAT TCTATCAGCC CACGTTTCGA ATGCACTTAA CCCATCGGGA AGTACGAGAT	2400
AAGCTGCTTT CTACTCTGA GGGATTACAG GTTCACTACG AACTCTATCA ACTCCTGCTC	2460
TTTCATTTTC AAGAGAAGAA TGCCGACCAT TTCTTTGGAT TGATTGAGCA AGAACTGCCA	2520
ACGGTTCATC CGCTTTTTC AACGGTCTTT TGGACTTTTT TAAGGGATAG AGATAAGATT	2580
ATCAACGCAC TTAAGCTGCC TTATTCCAAC GCTAAACTTG AAGCGACCAA TAATTTGATT	2640

1215

AAGATTATCA AGCGCAAAGC CTTTGGTTTC CGGAACCTTA ACAATTTTAA AAAACGGATT	2700
TTGATGACTT TGAACATCAA AAAAGAGAGT ACGAATTTTCG TACTCTCCAG ATTGCAGCTT	2760
TTTCGCCTACC CACTACACTT GACAAAGAGC CACTCTTTAT TCCATGGTAT CAAAGGCAAG	2820
ACTTGGTTTG GCATTGAGGT CCCAGCCTGC GAAGTTTCTT TGTTCCTACT CGCTGACGCT	2880
GGCATAGGCA ATCATACCTG CATTGTCTCC GCAGAGTCGC AGAGGGGGGA TGATAACCTT	2940
GACATCTGTG ATTTCCGGCTG CTAGGCGTTC TCTGAGACCT TTATTGGCTG CCACACCACC	3000
TGCCACAACCT AGGATTTTAA CAGGATATTT CTCCAAAGCC TTCTTGGTTT TTGCCATGAG	3060
AAATGCCATA ACTGCTGCTT GGAAGGAAGC ACACAAATCT TCTGTAGACA GGCTTTCTCC	3120
CTTTTGCTCG GCATTGTGAT GAAGATTGAT AAAGGCAGAT TTCAAACCTG AGAAGGAGAA	3180
CTCCAGATTA TCTTCCTTAA TCATGGCAGC GGGGAAATCA TAAATATCCT GCCCCTGATG	3240
AGCCAGCTCG TCAATCTCAC GACCTGCAGG ATAGGTCAAG CCCATGACAC GGCCGACCTT	3300
ATCATAAGCC TCACCAACCG CATCATCAGC GGTTCCTCCA ACAATCTTAT AATCTCCTGC	3360
CTCCGAAACA TAAACCAACT CTGTGTGTCC GCCGCTGACC AAGAGGGCTA GCAAGGGAAA	3420
CTCCAAAGGC TCCACACTCT GAGCTGCCAT GAGGTGCCCA GCCATGTGAT TAACAGGAAT	3480
CAGTGGAAGT CCGTGAGCCC AAGCAAAGGC CTTGGCAGCT GACAAACCAA CTAGCAAGGC	3540
TCCGACCAAG CCTGGTCCGT AGGTAACCGC AACAGCTGTC ACGTCTCTT CGGTAATCCC	3600
TGCTTCTGCC AATGCCTCCT CGATACAGGC TGTAAATGACC TCGACATGGT GACGACTGGC	3660
TACTTCGGGC ACTACGCCAC CAAAACGTTT GTGACTCTCA ATTTGACTAG CAATGACATT	3720
GGACAAGAGC TCATCGTCGT TTTTCAAGAC GGCACACTG GTCTCATCAC AGGATGTCTC	3780
AAATGCTAAA ATATATCTAT CCTTCATCTA TTTCTCTCTT CATGATAATG GCGTCTCGA	3840
CTGGGTGATG GTAGTAGGCC TTTGCTCAG CGATAACTGT CATCTTTTCT TTCTTGTAAG	3900
ATGCTTGCGC TCGTTGATTT GACTGTCTGA CTTGAGGAA AATTTCTTGT TCTGTGCGCA	3960
ATTGAGCAAA CAAGGCTGAC GCAATCCCCT GACCCTGATA AGCTCCTTTG ACAGCGATTT	4020
GCAGGACTTC TGCTTCAAAA AGATTCTCCT GCACAGCTAG AAATCCAATC ACTTCTGCCC	4080
CATCATAAGC CAATGCATAC CAAGTCTGGT CTTGGGACAG ATCTGCTTGG ATTTGCTCCA	4140
GAGTCCAAGG ACTGACTAGG TAAACAGCTG CCATAACAGC GTAGATGGCT TGAGCTAGGT	4200
CAGGCTGTTG TTGAATTCGC TTGATTCTA TCATAGGCGT TTAATGTAAG ACTCGCCAGA	4260
CTCGGTATGG TTCTTGAGCC AGTTTTCCTC AGCCTCGACT CGTTTGAGGT AATTCGGCAC	4320
AAAATCATGC AAGGAGTCTG CTTCTTGTC CCAGGCCAAA AGAGCTAGAT TAGCTGCATT	4380

1216

GGGCAATGTT TCTTTGTAAT CAGTCCTTGG CAAGTGTTTT TGAATCTGCT CAACAAAGGG	4440
GCCAACTTCT CCGACAAAGG TTACCTGACT AGTACCCTTG ACTTTTCTA GCACCTCTTC	4500
AAAAGATAGG TGCCTTCTG CCATGACAGG TTGGCATT TCAATAAATC CTGCATAAAC	4560
ATTATTGCGA CGCGCATCCA TCAAGGGGAC AAACAAACCT TCTTGTGAT GGGGCACCAG	4620
AGCCAAGAGA CTCGACATAC CAACCAACTC GATGTTTCTG GTGTGAGCTA AGGTCTTAGC	4680
AGTTGCTACC GCAATTCGCA AGCCTGTATA GCTACCCGGC CCTTCAGCTA CCACGATTCTG	4740
GTCCAAATCC TTGGGTGTCC AATCCAAACT TGCCATCAAA AAATCGATGG CAGGCATAAG	4800
AGTAATACTG TGATTTTCT TAATATTAAT CGTCGTCTCG GCAAGAACCT GCTTATCTTC	4860
TAAATAGCC AGAGAAAGAG CCTTGCTGGA CGTATCAAAA GCTAATACTT TCATAACACA	4920
TTCTTATCTT TTTGTCTGCT TACTATTATA CTACAAAAGC TGGCACATGG GAATTTCTTT	4980
TGCCCCCAGA CAAGAGTGCC CTCACTTAAC TAAAAATAAT TAAAAAAAT GCTCACTTTT	5040
CCTTTTCTTT TCCGAATATA AAAGTGAACA AGAAAAAGG AGGAAAGTTC AATGACAAAT	5100
TTTGACATTC TTGACAATCA ATTTTATCC TTATCTGAAA ATGAATTATC AGATATTGAT	5160
GGCGGTCTCG CTCCTTGGT TATCTTTGGA GTAGCAGTAT CTTGGAAGGC TATTGCAGGT	5220
GGAACAGCAC TTATAGGTTT TGGTTTGGCA GCTGGTTATT TTTTAGGAGG AGATTAATAT	5280
GATGAAAGAT TTGAACAAT ATCGTGAAAT TTCTAATAAG GAATTGCAAG AAATCAAGGG	5340
TGGCTTTGGT GTCGGTGTG GTATCGCTT ATTTATGGCA GGTATACCA TTGGAAAAGA	5400
CCTTCGTAAA AAGTTTGGTA AGTCATGCTA GATAAGAAAC ACATTTTATAG AAGGATAAAT	5460
TTTATTGTCT TCATCTCTTA CAGTTTGCTC AGCATTCTCA ATGATTTGAA CATTACTACC	5520
ATCCCTTTAC CATTCGATTT ATCTGTTTGT ATTGTTTAT TTTTATGCTT CAACTCTATT	5580
TTTGATCAGA ACAATGACTC CCATAAAAT AATAAGCTTT GAAAATTCCA TTGTCATGTC	5640
ATGTTAGAAA AATGCAAAGA CCACCTCATC TTGATAGATG GGGTGGAATT TTCGTGTCGT	5700
AAATCTACTA TCTCTACATT CCCAAACAAA AAACCCAGC ATAAGCAGGG CATCTAAGCA	5760
TTTAATTCAA AGTAAATAC AAACCAAACG ACATAGGTCA CGAGGAGGAG AAAAAGCGAG	5820
TAGAGAGTCA CAAAGGTCAT TTCCACAAG AACTTGGTTT GTCGTCTGTC CAGTTTGGCA	5880
AATAGAAGAT TCCCCGCATA AACGCAAGCA ACAAAAACAA TAAAAGCTAC CAAGCGAGCT	5940
CCGATAGCAA AAGCAAATAA GTTATACATA GGGCAACCTC CTTGACTTAA AATCTATATG	6000
GAATTATGAC AAGCAATAAA TTCACTTCC GTTATCAACA TAATACATTT TCTTTATTTT	6060
TGAAAACGCT TACCAAAGAA ATCGTCCCT AACTTCTCG TTTCCGTCTT TACTAATTT	6120
TTCATTTTGT GGTATAATTG AAATAATTGT AACGAATCAA GGTCATCTA GACACAAAAT	6180

1217

GGAATGAAAT CAAGCAAATA TCTGCTAAAA GTTTGGAATA AGCTGACCTG TAAATAGAAA	6240
GGAAGTATAT GATTTACAAA GTTTTATATC AAGAAACAAA AGAACGTAGC CCACGCCGTG	6300
AAACAACACG CACGCTTTAC CTAGACATCG ATGCCAGCTC AGAACTTGAG GGCCGTATCA	6360
CTGCTCGCCA ACTTGTCGAA GAAAATCGCC CAGAGTACAA TATCGAGTAT ATCGAACTCT	6420
TGTCTGACAA ATTGCTCGAT TACGAAAAAG AAAGTGGCGC CTTGAAATT ACGGAGTTCT	6480
AATATGGCCT ACACCTCTAA ACCTGAAGAA GTCGGCGTTT TTGCCATCGG TGGTCTAGGA	6540
GAAATCGGGA AAAACACTTA CGGAATTGAA TACCAAGACG AGATTATCAT CGTCGATGCT	6600
GGGATTAAAT TCCAGAAGA TGACTTGCTT GGTATCGACT ATGTCATTCC TGACTACTCT	6660
TACATCGTGG ACAATATCGA CCGCGTCAAG GCTGTTTTAA TCACACACGG ACACGAGGAC	6720
CACATTGGTG GGATFCCGTT CCTACTCAAG CAAGCAAATG TCCCTATTTA TGCTGGACCG	6780
CTTGCTTGG CTTTGATCCG TGGGAACTC GAAGAACACG GCCTCTTGG CAACGCCAAA	6840
CTTTACGAAA TCAACCACAA CACCGAGTGG ACCTTTAAAA ATCTCAAGGC AACTTTCTTT	6900
AGAAGGACTC ACTCTATTCC AGAGCCTTTG GGGATTGTCA TTCATACTCC TCAAGGGAAA	6960
ATCGTCTGTA CGGGTGACTT TAAGTTCGAC TTTACTCCAG TTGGAGAACC TGCGGACTTG	7020
CATCGTATGG CTGCGCTTGG TGAAGAAGGC GTGCTCTGTC TCCTGTCTGA CTCGACAAAT	7080
GCGGAAGTAC CAACCTTTAC CAAGTCTGAA AAAGTCGTTG GTCAGTCCAT TATGAAGATT	7140
ATCCAAGGTA TTGAAGGACG TATCATCTTT GCATCCTTTG CCTCAAATAT CTTCGCTCTC	7200
CAGCAGGCAA CAGAAGCTGC TGTTAAGACT GGACGCAAGA TTGCGGTCTT TGGTCGTTCT	7260
ATGGAAAAGG CCATTGTCAA CGGAATCGAT CTTGGCTACA TCAAAGCTCC TAAGGGAACC	7320
TTTATCGAGC CAAATGAAAT CAAAGATTAT CCTGCAGGAG AAGTCTTTAT CCTCTGTACA	7380
GGTAGTCAGG GTGAGCCTAT GGCAGCCCTC TCTCGTATCG CCAACGGAAC CCACCGTCAA	7440
GTACAATTAC AACCAGGTGA TACCGTTATC TTCTCTTCTA GTCCCATCCC TGGAAACACT	7500
ACTAGTGTCA ACAAGCTGAT TAACATCATT TCTGAAGCTG GTGTCGAAGT TATCCACGGT	7560
AAAGTGAACA ATATCCATAC ATCTGGACAC GGTGGTCAGC AAGAGCAAAA ACTCATGCTC	7620
TGCTTGATTA AGCCAAAATA CTTTCATGCCT GTCCACGGTG AATACCGCAT GCAAAAAGTC	7680
CACGCTGGAC TAGCAGTGGG TACTGGTGTT GAGAAGGACA ATATCTTTAT CATGAGCAAT	7740
GGCGATGTGC TTGCCCTTAC TGCTGACTCA GCTCGTATCG CAGGTCATTT CAACGCCCAA	7800
GATATCTATG TCGATGGAAA TCGTATCGGT GAAATTGGCG CAGCTGTCCT CAAAGATCGT	7860
CGCGATCTAT CTGAAGACGG TGTCGTTCTG GCAGTTGCAA CTGTTGACTT CAAATCGCAG	7920

1218

ATGATTCTAT CTGGTCCAGA CATCCTCAGC CGAGGCTTTG TCTACATGAG AGAGTCTGGC	7980
GACTTGATTG GCCAAAGCCA GCGTATCCTC TTCAATGCCA TTCGTATCGC ACTGAAAAAT	8040
AAGGATGCTA GCGTGCAATC TGTCAATGGT GCCATTGTCA ACGCTATTTCG CCCCTTCCTC	8100
TATGAAAAATA CCGAACGTGA ACCGATCATC ATCCCGATGA TCCTCACACC AGATGAAGAA	8160
TAAAGCAAGA AAACAGCCCC GTCCTCGGAG CTGTTTTTCT CTATGCTTTC TTTTGAGATT	8220
AAAACTCATA CTCATGAAA ATCAAAGAGC AAAC TAGGAA GCTAGCCGTA GGTGCTCAA	8280
AGCACTGCTT TGAGGTTGTA GATAGAATG ACGAAGTCAG TAGCCATACC TACGGCAAGG	8340
CGACGTTGAC GCGGTTTGAA GAGATTTTCG AAGAGTATCA ATAAAAATCG AAATCAGACT	8400
AGAAGGCTAA GCGAAAGCAT AACTTGAGTT AGCTCCCATG GTTCGGGAAA CTATGGGAGG	8460
CTGGAGATGA ATCAAAGCCA AGCTTTGAAC TCATTTCGTAA GAAGCCGACG ACGTATCATT	8520
TTGATTTTTG AAGAGTTTTA GAAATACTAC GATTTTTACC TTCCAGATAC ACCATCAAAA	8580
TAGAAATATC TGCTGGGTTT ACTCCCGAAA TACGGCTGGC TTGGCCGATG GTTCTGGAT	8640
TGATGAGTTT GAACCTTCGA CGGGCTTCGG TTGCGATAGA ATCAATGTCA TCCCAAGTGA	8700
TATTGGCCGG AATGCGTTTT TCTTCCATGC GTTTCATCTT GGCAACCTGG TCCATGGCTT	8760
TGGAAATATA GCCTTCATAC TTGATTTCTG TTTCAATCAA TTCGATAATC TTGTCATCCA	8820
AGTCTTCTGC AGCTGGTCCG ATGAAGGCCA CCACATCTTG GTAAGAACT TCTGGACGGC	8880
GAAGGAATTC CTTGGCTGTC ACTGCATCGG TCAAGGGTTT GAAGCCCATC TCCTCAACCT	8940
TGGCATTGGT TTCCCTGACT GGCTTGAGTT TGATACTGTC TAGGCGCTTC ATCTCATATT	9000
CAAATTGATT TTTCTTGATT TCAAAACGAG CCCAGCGTTC ATCGTCCACA AGGCCAATCT	9060
CGCGTCCCAT CTCAGTCAAG CGCATATCAG CATGTCTATG ACGAAGAATG AGACGGTATT	9120
CAGCACGACT GGTCAAGAGA CGGTAGGGTT CAATGGTTCC CTTGGTCACC AAGTCGTGCA	9180
TCATCACCCC GATATAACCA TCACTGCGCT TCAAAATCAA TTCAGGCTTG CCTTGGATTT	9240
TCAGAGCCGC ATTGATACCC GCGATAATCC CTTGGCCTGC TGCCTCTTCG TAACCTGATG	9300
TTCCATTGTG CTGACCAGCA GTGAAGAGAC CTGAGATTTT CTTGGTTTCC AAAGTCGCAC	9360
GCAACTGATG AGGCAAGACC ATATCATACT CAATAGCATA ACCTGTCCGC ATCATCTCTG	9420
CATTTTCCAA ACCTTTGATG GAATGCACCA AGTCACGCTG GACATCTCA GGCAGACTGG	9480
TTGAAAGTCC TTGCACATAG ACTTCCTCAG TATTGCGCCC TTCTGGCTCA AGGAAGAGTT	9540
GGTGACGTTT CTTGTCCGCA AAGCGCACAA TCTTGTCTTC AATCGACGGA CAGTAACGAG	9600
GCCCCACTCC CTTGACCACA CCTGTAAACA TAGGCGCACG GTGGAGGTTG TTTTGATAA	9660
TCTCATGACT GGTACCATG GTATAGGTCA ACCAGCATGG TACTTGGTCC TTGACATAAT	9720

1219

CCTCATCACG TGAAGTGTAT GAGAAATGAT TAGGCACTTC GTCTCCTGGC TGAATTTCTG	9780
TCACATCGTA ATTGATAGAA GAAGCCTTGA CACGTGGAGG GGTTCCTGTC TTGAAACGAC	9840
CGATTTTCGAG ACCCAGTTCC TTGAGATTGT CAGCTAGGTT AATAGAAGCC AAGCTGTGGT	9900
TAGGACCTGA TGAGTACTTG AGGTCTCCGA TGATAATTTC CCCACGGAGA GCAGTCCCTG	9960
TCGTACAAT AACAGCCTTA GCAGCATATT CTTGATGGGT GGCTGTACGC ACACCGACAA	10020
CCTTGCCATC TTCCACCAA ATCTCATCAA TCATGGTTTG ACGAAGGGTC AGATTTTCTT	10080
GGTTTCAAC CGTCTTGCGC ATCTCCTTAG AGTAAAGTTC CTTGTACGCC TGCGCACGAA	10140
GGGCACGGAC AGCTGGCCCC TTCCCTGTGT TTAGCATCTT CATCTGGATG TAAGTCTTGT	10200
CAATGGTTT GGCCATCTCG CCACCGAGGG CATCGACTTC ACGCACGACA ATCCCTTGG	10260
CAGAACCACC GATAGAGGGA TTACAAGGCA TGAAAGCCAG CATTTCAATA TTGATGGTCG	10320
CAAGCAGGAC CTTACAGCCC ATACGGCTAG CGGCCAAGGA AGCCTCAACC CCAGCGTCTC	10380
CCGCACCAAT TACAATAATA TCGTATTCTT CAGTAAATG ATAAGTCATG TTTCTCTCCT	10440
ATTCTCAAG ATGAATGTGT CTTAGTTGGC CTTCCCAATC TGGTAGGGCT GTTTTAAAA	10500
AGACTGGAAC TAGCTGGATA TTCTGGAGCT TATCCAAGTC AATCCACTCA CAGGGCTGCC	10560
TTTTCTCATC TTCTGCATG GTCAACGGGG CATCTTCAAG CAAATCCACC AGATAATGAA	10620
ACTCGATATT GTGATAGGAA ACGCCGTCCA CTTCAAAACG ATTTTCAACC ACAAAGCTA	10680
GCTGCCCAGC TTGAGCTTTG ACACCCAGTT CTTCTTTCAC TTCACGGAAT ACCGCGTCTT	10740
CCGTGCTTTC ATTGACTTGA ATCGCACCTC CAATAGTGTA ATACTTGCCC TTGTCTTTGG	10800
TAACTAGAAG CTTGTGATTT TGGACAATCA AGGCTGTAGC CCGAACACCA AAAACCGTAT	10860
TGTCTACTTT TGTCCGAAAG TCTTGTGAG TCATTCTTGT CCTTTCCTT AAACGACACA	10920
AAAACAGTCA AACTACAAA GAAGTGCAGG ACAAAAAGC CTGCAACATC CAGG	10974

(2) INFORMATION FOR SEQ ID NO: 215:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 987 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 215:

CCCGTTATGA TTATGGATAG CGCTTCAAA TTTTAAACT CCTATCCCAT CCTTTATCT	60
ATATAATAAG TGAAATATA ATAACTGTCA AGTAACTGAA GTGAATTTTA TAAAAAATT	120

1220

ACAAGCCAAA TTTGTAAAGT TTACACTAAG CCGCTAGgCA ATCGTCTATC AGAATATCCG	180
TTTATTGTGTC AATAATCCGA GAAAATCTTG CAACGCTTAG AAGTCTATAA AAACATATCAA	240
CATTTATATG ACTTGCGAAT AGCAATCCTG CTAAACCTTT CCACACTCTA TCTATACAAT	300
CAAGATAAAA ACATGTGTAA GCAAATCTGC TACACTTTAC TGGAGGACGC CAAGAATAAG	360
AAAAGCTACG ATAGGCITGC TATCTGCTAT GTCCGTATTG GGATTTGTAC AGACGATTCT	420
AAACTTATCC AAAAAGGGTT CTCCCTTCTG GAGCTGACCG AGGAAACTTC TATGCTGTCT	480
CATCTCAAAA AAGAAGTAGA GACCCATTAT CAACCAAAGA AATTATAAAA AAAGTCGAGG	540
GAGCTCCTCG ACCTTTTCAT AGAATCGCCG AACGATTAA CGAGAAAAGTA TGACTTTTAC	600
GTTTATCCCA ACTCAATTAT GACATTTTTT TCAAAAGTCA ATATATCTCA CTTTTTCAAC	660
GACAAGAAAG AGGCTGATAA TCTACCAACC TCTTATTCTG AACCCATCAC TCCATCACTT	720
TTTAGCTTCA TTCGCTTTCT TAGCGACTGC AATCTGGTAT TCGACTTGGT CATTCCCCTT	780
ACCGGTACAA CCATGAGCAA TTGTAGTCGC TCCTATCTGA TCGGCTATTT CAACCAATTT	840
TTTAGAAATC AGAGGGCGGC TCAAGGCAGA TACCAAGAGA TACTTTTGTT CATAATAGGC	900
ATGTGACTGA TGAGCCACTA GCACATAATC TGTAGCAAAT TCGTCCTTAA CATCAATGAC	960
ATAAGATTCT ACTGCCCAAA CCTTAAG	987

(2) INFORMATION FOR SEQ ID NO: 216:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2651 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 216:

CTGGGTCTTG TTCATAGTAG GTGTGGTtCT TTTTTCGAG TGTAGCCCAT AGCTTTGAGC	60
GCATAGTGGA TGGTAGTTGG ATGACAGCCA AAGTCAGAAG CTATTTCAGT CAAATAAGCA	120
TCTGGATTGT CAGTAAGATA GTTTTAAAGT CTATCTCTAT CAACTTTTCT TGGTTTGT	180
CCTTTTACTT GGTGGTTTAG CTCTCCTGTT TTCTCTTTTA GCTTTAACCA GCCATAAATG	240
GTATTACGTG AGATTGGAA AACGTGTGAT GCTTCTGTTA TACTACCTAT TCGCTCACAA	300
TAAGAGAGAA CTTTTTTACG AAAATCTATT GAATATGCCA TAAGAAGATT ATACCACATT	360
GTGTACTATT TTTGGTTCAT TTTACTATAT TTTATAAGTT ATAGTGTAGC ATTCCAACCT	420
CAAAGCACTA TAAAGTAAAT TGAAACAAGA ACAATACAAA CAATTCTCGT AAACGGATTG	480
CAACCACAAA AAAGCAAGCA TTCACAAGAA TACTTACCTA TCATGGGAGG AACAAACGTT	540

1221

CCTCTTTTTT ATTACTAAAA TTCAAAGAAT TCCAATGCTT TTTTCAAGAG CAAATCCGTA	600
TATTCTGGAT CTTCTTGGGC TACTTCTATT TCCCGCTGAA CTTTTCCTCA ATCATCTGTA	660
ATCACTCCAT CTACTCCTAA GTGAAGAGAT TTGCTGATAG CTTCTGAATC ATTGACAGTC	720
CAGACATAAA GTTCTGATC CGTTGTCCAT AGTTTGCTTA CAAAATATTC ATCCAAGGTT	780
GAGTACTCCA TAGTATATCC TGTGCTCTT GTTTTAGGAA AGACAGAATT GTAGGGCATG	840
ATGAAATAAA CTGGTAGTTC GGCATCATAC TGTCTTACTT TTTGACAAC ATGGTAGTCT	900
AAAGACTGGA TTTGATGTCC ATAAATCTTG AGCTTTCAG CATAACGGGC TAAAAAGCGG	960
TTTCATCATG CTGGACTATC TTTTCTACTG GTTTTAATTT CAATTAGTAA TTTTGGACCA	1020
AGTTCGTTGG CTCGACTGAG ATAATCTTCA AAGCTTGAAA TTTTAGTCTG GTAGCCATTT	1080
TCAAAAATAT CAATCCCTTT AAGCTCCTCC AAGTTTAAGT CTTGAGGACT TTTATTGATA	1140
CCTGCTAGAT TTTTCAAGTT AGCATCATGC ATCATGACAA ACTGCCCCATC TTTTGTTCCT	1200
TGCACGTCGG TCTCCACCAA GTCTGGTTTG AGTTGTGCTG TAGTTTCCAA GGACTCTACT	1260
GTATTTTGAA TCCCATTTGC ATTGGAAACC CCTCGGTGAG AAATAAGTTG AGGTAGATGA	1320
ACCATGGGAG CCTCCAGATA AATATAACCT TCTAAGGCAA AGAAAAGACT GGCACAAGTC	1380
ATGACACCCC ATCGCAGCAT GTGATCTTTT TCTCTCCTAG GAAGCATATC CAGCTCCTTT	1440
CCTGTCAAAA ATGAAACAAA TTTAACCAAA AAATAAGTCA GAGCCATATA ATAGAGATTT	1500
TTAATCAGCA CAAAATTCOA AATACCAAGA ATCAGAGACT CTCTCTGAGT GATATCATCT	1560
ACCAAAGTTT GAGCCAATAA TAAAGGAATC AAAGGAAGAT AATAATAA ATGTGCTTTG	1620
AGCAAGATGT AAAATAAATT CCAAGCATAA AAAGTAACTC TCTTCTTGGT TTTCTCCAAG	1680
CTAAACATCA CTGCTTCTCG AACAGTCAGC TGATCATATA CAATCTTCGG AAGGGCAAAC	1740
ATCAATCTGA CAGAGACATA GAGAAAGATA AGAGATAGAA GTAGGATGCT CAGCCACCAC	1800
ATCCAATATC TATCTTCTAA ATAAGCTTGG ATAAACTCTG GAATGACGAT TTTATTAAGA	1860
TAATAAATCT TCAGCATTTT CCGTATAAAA GGAAACAGCA TAGCTATATA GAAAAGATA	1920
AACAAGGCTT TAGCGCAAGT TAGCTTTTTC ATAAATCCAA AACTTTCATG GAAAACCTTG	1980
CGGATATACT CAATTAGCCT TCGCTTTTCA TTATAGAGGA GATGACGAGC ACCAATAAAG	2040
AGGAGTCCTA TTTGAAAATA AGCAACCAGA AGGTTAATTA CAATCAAGGC TAAAAAGCT	2100
AGACTAATCA ATGAGAAATG AGTAAGGATG GCTAAGACAT TGTATAGGA AATAAAAAGA	2160
TAACCTGTCT GATCTAATAA GAAGCTAGCC AACCATGAAT TGAATGGTAC CCACAAATAC	2220
TCCACTATCA TAAAAATCAA GAAAAATAGA AAGAGGATTT TATCAAGATC GAGGTAAATC	2280

1222

TGTTTAAGAC CCAATTTTTT AGGTTTTTCA GGTTCATAG GCACTCCTAG TCAAATAATT	2340
GAGACAAGTC CAAGCCACCA AAAGGATTGT TTGATAAGCT ACTTTCTGTC TCTAACAATT	2400
CCCTAGCTTG ATCCGACTCT AAGAAGGATT CGTAAACACG GCCTGTCATC CGAGCATCCT	2460
CTAAACTATT ATGAGACTGA CCTTGAAATC CAAGAAATGA GGCAACAGTT TGCAATTTGA	2520
GATTGGCAAT ACCATGTAAA TCTGAACTCC GACGTTCAAA AGCTTCATCA TACAAATCCA	2580
CCTTGACTTG TTGGCTATAG TCTAAACCAT GCTCTGCTAA AATAGGTAAA TCACTTTTAG	2640
CAGCATTGTA G	2651

(2) INFORMATION FOR SEQ ID NO: 217:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5638 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 217:

CGTTATAATA AACTTGTGAA AAAATTAACA AAGGATATCG TTCCTTGAAA GCTATGGAGG	60
AAAAATATGGC TGATAAAAAA ACTGTGACAC CAGAGGAAAA GAAACTCGTT GCTGAAAAAC	120
ACGTAGATGA GTTGGTTCAA AAAGCTCTAG TTGCCCTTGA AGAAATGCGT AAATTGATC	180
AAGAACAAGT TGA CTACATC GTTGCCAAAG CATCAGTAGC AGCTTTGGAT GCCCACGGAG	240
AATTGGCTTT ACATGCCTTT GAAGAAACAG GACGTGGTGT ATTTGAAGAC AAAGCAACTA	300
AGA ACTTGTG TGCCTGTGAA CACGTAGTAA ACAACATGCG CCACACTAAG ACAGTTGGCG	360
TTATCGAAGA AGACGATGTA ACAGGATTGA CTCTTATTGC TGAACCAAGT GGTGTTGTTT	420
GTGGTATTAC TCCAACAACA AACCCAACAT CAACAGCAAT CTTCAAATCA TTGATTTTCAT	480
TGAAGACACG TAACCCAATC GTCTTTGCCT TCCATCCATC AGCACAAGAA TCATCTGCTC	540
ATGCAGCTCG TATCGTCCGC GATGCAGCTA TCGCAGCTGG TGCTCCTGAA AACTGTGTGC	600
AATGGATTAC TCAACCATCT ATGGAAGCAA CAAGTGCCCT TATGAACCAC GAAGGTGTTG	660
CGACAATCCT TGCAACAGGT GGTAAATGCCA TGGTTAAGGC GGCTTATTCA TGTGGTAAAC	720
CAGCTCTTGG GGTAGGTGCC GGAACGTTT CAGCTTATGT TGAAAAATCA GCAAACATTC	780
GTCAAGCAGC ACACGATATC GTCATGTCTA AATCATTGTA TAACGGTATG GTCTGTGCAT	840
CTGAACAAGC AGTTATCATT GATAAAGAAA TTTACGATGA ATTTGTAGCA GAGTTCAAAT	900
CTTACCACAC TTA CTTTGTGA AACAAAAAG AAAAAGCTCT TCTTGAAGAG TTCTGCTTCG	960
GCGTCAAAGC AAACAGCAAA AACTGTGCTG GTGCAAAATT GAACGCTGAC ATCGTTGGTA	1020

1223

AACCAGCAAC TTGGATTGCA GAACAAGCAG GATTTACAGT TCCAGAAGGA ACAAACATTG	1080
TTGCTGCAGA ATGTAAGAA GTTGGCGAAA ATGAGCCATT GACTCGTGAA AAATTGTCAC	1140
CAGTTATTGC AGTTTGAAG TCTGAAAGCC GTGAAGATGG TATTACTAAG GCTCGTCAAA	1200
TGGTTGAATT TAACGGTCTT GGACACTCAG CAGCTATCCA CACAGCTGAC GAAGAATTGA	1260
CTAAAGAATT TGGTAAAGCT GTTAAAGCTA TTCGTGTTAT CTGTAACTCA CCTTCTACTT	1320
TTGGTGGTAT CGGGGACGTT TACAATGCCT TCTTGCCATC ATTGACACTT GGATGTGGTT	1380
CTTACGGACG CAACTCAGTT GGGGATAACG TTAGTGCCAT TAACCTCTTG AATATCAAAA	1440
AAGTCGGAAG ACGGAGAAAT AACATGCAAT GGATGAACT TCCTTCAAAA ACATACTTGT	1500
AACGTGATTC AATTCAATAC CTTCAAAAAT GTCGTGACGT TGAACGTGTC ATGATCGTTA	1560
CTGACCATGC CATGGTAGAG CTTGGTTTCC TTGATCGTAT CATCGAACAA CTGGACCTTC	1620
GTGCGAATAA GGTGTTTAC CAAATCTTTG CGATGTAGA ACCGGATCCA GATATCACAA	1680
CTGTAAACCG TGGTACTGAG ATTATGCGTG CCTTCAAACC AGATACCATC ATCGCACTCG	1740
GTGGTGGGTC TCCAATGGAT GCTGCCAAAG TAATGTGGCT CTTCTACGAG CAACCAGAAG	1800
TGGACTTCCG TGACCTTGTC CAAAAATTCA TGGATATCCG TAAACGTGCC TTCAAGTTCC	1860
CATTGCTTGG TAAGAAGACT AAATTCATCG CGATTCCAAC TACATCTGGT ACAGGATCTG	1920
AAGTAACACC ATTTGCCGTT ATCTCTGATA AAGCAAACAA CCGTAAATAC CCAATCGCTG	1980
ACTACTCATT GACACCAACT GTGGCAATCG TAGATCCTGC TTTGGTATTG ACAGTTCCAG	2040
GATTGTTCG TGCTGATACT GGTATGGACG TATTGACTCA CGCGACAGAA GCATACGTAT	2100
CACAAATGGC TAGTGACTAC ACTGATGGTT TAGCACTTCA AGCCATTAAA TTGGTCTTTG	2160
AAAATCTCGA AAGCTCAGTT AAGAATGCAG ACTTCCACTC ACGTGAGAAA ATGCATAACG	2220
CTTCAACAAT CGCTGGTATG GCCTTTGCCA ATGCCTTCCT AGGTATTTCT CACTCAATGG	2280
CCCATAAGAT TGGTGCGCAA TTCCACACAA TCCACGGTCG TACAAATGCT ATCTTGCTTC	2340
CATACGTTAT CCGTTACAAC GGTACACGTC CAGCTAAGAC AGCAACATGG CCTAAGTACA	2400
ACTACTACCG TGCAGATGAA AAATACCAAG ATATCGCACG CATGCTTGA CTTCCAGCTT	2460
CTACTCCAGA AGAAGGGGTT GAATCTTACG CAAAAGCTGT CTACGAACTC GGTGAACGTA	2520
TTGGGATCCA AATGAATTTT AGAGACCAAG GAATTGACGA AAAAGAATGG AAAGAACATT	2580
CTCGTAAATT AGCCTTCCTG GCTTATGAAG ACCAATGTT ACCAGCTAAC CCACGTCTTC	2640
CAATGGTAGA CCATATGCAA GAAATCATCG AAGATGCATA CTATGGCTAC AAAGAAAGAC	2700
CAGGACGCCG TAAATAATTG TTTATCAGTC TAGAAGCAAG AAAAAACTC AATTGAGGG	2760

1224

AAAGATCCAG TAATTTTCT ATGATAAAG GCATCCTATC AAGGTTTTG AACACCTGAT	2820
AGGATGCCTT TTTATGATAT TGAGGCCTT TTGCCCTTT TGAAAACTA GAATAGAAAC	2880
AAAATATATA ATAGATTGAA ACTAGAATAG TACATATCTG CTTCTAAAAC ATTGTTAGAA	2940
TTCGATTGA CTGCTCTGAT CGATTGTCC TGTCTTATT TCATTTTGAT ATATAAAAAA	3000
TATAGTATAG TAGACTGAAT CTAAAATAGT ACGAAACAAT TGCTAAAACA TTTATAGAAA	3060
TTAATTTTAC TTTTCTGATA GAGTTGTTCA CATCTTATT CAATTCAC TAAGTTAATT	3120
TAAGAGTAGT ATTTACTAAG GCCCAATTAA AATCAAAGAG CAAACTAGAA AACGAGTGCC	3180
ATTCAGCTCA AAACACTGAT TTGAGATTGC AGATAAGACT AGCCCCCTCA TTAACAGATT	3240
TACGATAAAA CGATGACAAG GTGTGTTGCT TTTTGATTT TAAAGAGTAT AATGATAGAT	3300
CTCTATAAAA TAAGTGCAG GGAATGAGC TTTTATAGTC CTTTCGTTTT AAAATACTAT	3360
CTCAGATATT CTTATATCGA CAAGAAGTTT TTGAGTCATT CCCTCATCAT ACATATTAAA	3420
TAAATAGTGG CTCATTCAAT TTTTCACTAG AATAATAAGC TAGTATAGTA AACTGAAATA	3480
AGATATAAAC AAATAAATG GAGCTTAACA TCCATTTCCA GCAATTTTTT AGAAACTACA	3540
GTGGACTATT CTAGATTCAA CATATTATAA AAAC TAGAGT AAAAGAAAAG GATTGGATCT	3600
TGTGTAATGC AGGATCCAAT CCTTCAATC ATTTTGTCCA ACTTTTGGAG GTTCCTACAA	3660
TGTAGTCGTC ATTAATAAAG ACAGATGGGA ATGACAGTGT TCCTATTTAT TTTGATAGAG	3720
ATCGATGAAT TCTTTAGATA GCAACTGAAT AATCTCTGTT GAAGCCATTT GGTCTTCTGC	3780
ATGCATAAAT AGCAAGGAGA ATCCTATTTT TTCTCCAGTA GCTTCTTTTT GTATGAGATT	3840
AGAGTGAATC TTGTGCGCTT CTACTAAGGA GTCTTCCGCT TCTTCAACTT TAATTTTCGC	3900
TTCTTTTAAA TTTCCTGCCT TAGCTAGTTG GATGGCTTCA ATAAAGGATG ATTTGGCTGC	3960
TCCACTATTG GCAATGAGCT GAAAACAGAT ATATTCCATT TCTTCTGTCA TCTTATTTCT	4020
CCTATCCATG CAAGTGCTTG TTCCAGAACT TTGCTCCAT TCATCATTCG GTAATCCCGC	4080
ATATCAATGG TATCTACAGG GATATTTCTT GCAATTTCTT TCACAGCAAG TAACTCATAA	4140
CGAATTTGTG GCCCAATTAG AATGACATCT GCTTCATGGA TATTCCTTTT AGCTTCTGTC	4200
ATTGATTTTG CTTGGATAGA GATTTCAATC CCACGTTTCA TCGCACTTTG TTGCATTTTT	4260
TTAACAAGCA TACTTGTGCA CATTCCCGCA TTACATACTA ATAAAATTG TTTTATAATC	4320
TTAACCTTCC ATTTCTTGT CAACAACCTT GTCATTAACT TTGATAAATG GAATGTATAG	4380
AAGAAGTCCA AGTGCAAAGA TGATGAATTG AACTAGAACT GCTCTCACGT CCCCTGCTGT	4440
TGCTAACCAT GCATTTAAGA ATACTGGTGT AGTCCAAGGA ACTTGATATA ATGCAGGACT	4500
CATGAATTCT GTAAGTGTG CTAAGTAGCT GATTAAAATA CCAAGGACTG GAAGTGTGAT	4560

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AAATGGAATA GCTAATGAAA TGTTATAAAC GATTGGGTAA CCGAATAATA CTGGTTCATT	4620
GATATTGAAG ATACCAGGTC CAAAAGATAA TTTAGCCACG TTTTAGAGA CAGCATTGCG	4680
ACTCACTAAG AATGTTGCTA TTAATAAACA TAATGTAGAT CCACTACCAC CCATTAAAGC	4740
GAATGTTTGT ATTTGTGATA GGTGATGAT GTGTGGAATG GCTGTGCCAT TATTTGCTGC	4800
AGTGATGTTT TCAGTAATGT TAATTAATAG TAATGGTTCT AGGATGGCAC TGTAATAAC	4860
TGCTTGGTGA ATACCAAATA GCCATAACAT ATTCCTAAA GAGTAAATAA TAATGACCCC	4920
GATTAAAGCTT GTACCAATAT GACGAATGG TTCTTGAATA AAGATTGTAA TGATTGAGAT	4980
TAAGTTCATT CCAATTATAT TGAATAATAA TGCTGAAACA ACCCCAAATA AGGAGATGAC	5040
GGTCATGACT GGAAGTAATA CGCTAAATGA TCTACTAACA GCTGGTGGAA TATTTTCACC	5100
AAGGTTTATT TGTAAGCTT TAACGTTTGA TAATTCAATG AATAATTCTG TTGCAATAAT	5160
CGLACGATAA CCCCGGCGAA CATTCGCCT GTACCTGTGT TGTGGAATGA AAGAACACCT	5220
GAAATGTTTA CCGCATCTTT TGCTCCGTCA GGAACACAG AAAGTGTATT TGGCATCATC	5280
ACAAATTAAG AAATAATGA TAGCATTGAT GCTGCTAACG GGTTTTCGAA ATCTCTGTTT	5340
TTAGCTAAGA AATAACCAAC CATTACAGCA ATAATCATACT CTGAAATACT TAAAGTACCG	5400
TTTGCAATTG TTATCCCCA ATATTGGAAT CTGTGTAATG TATCCCCTTG GAAAATCCAC	5460
TTAAATACCG TGTGTTCAA AAGAAGCATT AAACCTGCCA AAATATATAA TGGCATTACT	5520
GTTACGAATG CATCTCTTAG GGTTTTTAAA TGAATTTGGT TCCCTAGTTT ACCAGCAAAG	5580
GATGGCAAAA AAATTTTTTT GGGGGGGGG GTTATTAAAC CCCCCTTTTT AAAAAAAA	5638

(2) INFORMATION FOR SEQ ID NO: 218:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4745 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 218:

CCGGAAGCTG TTGCCCTTG AACTCCAAAT GAAGAAACAG CCTTTGTCTT GAACTATTTT	60
GGTGTGGAAG CACCACGTGT TATCACTTCT GCCAAGCAG AGGGGGCAGA GCAAGTTATC	120
TTGACTGACC ACAATGAATT CCAACAATCT GTATCAGATA TCGCTGAAGT AGAAGTTTAC	180
GGTGTGTAG ACCACCACCG TGTGGCTAAC TTGAAACTG CAAGCCCACT TTACATGCGT	240
TTGGAGCCAG TTGGATCAGC GTCTTCAATC GTTTACCGTA TGTTCÀAAGA ACATGGTGTA	300

1226

GCTGTGCCTA AAGAGATTGC AGGTTTGATG CTTTCAGGTT TGATTTCAGA TACCCTTCTT	360
TTGAAATCAC CAACAACACA CCCAACAGAT AAAATCATTG CTCCTGAATT GGCTGAATTG	420
GCTGGTGTGA ACTTGAAGA ATATGGTTTG GCAATGTTGA AAGCTGGTAC CAACTTGGCT	480
AGCAAACTCG CTGAAGAATT GATTGATATC GATGCTAAGA CTTTGAAC CAACGGAAAT	540
AATGTCCGTG TTGCCCAAGT GAACACAGTT GACATCGCTG AAGTTTGGGA ACGCCAAGCA	600
GAAATTGAAG CTGCAATGCA AGCTGCCAAC GAATCAAACG GCTACTCTGA CTTTGTCTTG	660
ATGATTACAG ATATCGTCAA CTCAACTCA GAAATCTTGG CTCCTGGTGC CAATATGGAC	720
AAGGTGGAAG CGGCTTTCAA CTTCAAACCT GAAAACAATC ATGCCTTCCT TGCTGGTGCC	780
GTTTCACGTA AGAAACAAGT GGTACCTCAA TTGACTGAAA GCTTTAATGC GTAAGATTTT	840
GGGTGTGAGC TCAAAATCGG AAAGTCTAGT TTGCCTTATA TCGCAAGGAG TTTCGGCTCC	900
TTTTTTCTAG GAGTGAAGTA TGTTAGAAAA TGGCGATTG ATTTTGTGA GAGATGGGTC	960
AGACATGGGA CAGGCCATCC AGACTTCCAC AGGTAACAT AGCCATGTTG CCATTTATTT	1020
GGATGGGATG ATTTATCATG CTAGTGGACA GGCTGGTGT GTCTGTCAAG AACCGGCAGA	1080
CTTCTTTGAG TCCAATCATT TATACGACCT CTATGTTTAC CCAGAAATGG ATATCCAGTC	1140
GGTGAAGGAA AGAGCTTGCA AACATCTTGG AGCACCCAC AATGCTTCTT TCTATCCAGA	1200
TGCACTGGT TTTTACTGCT CCCAGTATAT AGCAGAAATC CTACCTATTT TTGAACTAT	1260
TCCTATGAAA TTGGAGWTG GGGAGCAGGA GATTAGTGAT TTTGGAGGG AGTATTACAT	1320
AGAACTAGGT CTGCCTGTT CTCTGAACCA AGCTGGTACC AATCCTAGTC AGTTGGCAGC	1380
ATCGCCTCTG TTACAATGTA AAGAAAGGAA TCTTCATGAT TCAGATTTTT AATCCATCTC	1440
GTTTGACGAG ACAGCCATTT TTGGAGAATT GATCCGCTAT CTGGATCAGT ATGAGGATGT	1500
GATTCTACGG GAAATTAAG CTCAATTTCC AGATGTTGCA GTTGATAAAC TCATGGAAGA	1560
GTATATAAAG GCAGGCTTGA TTCTACGTGA AAATAAGCGC TATTACCTCA ATTTTCCTAC	1620
GCTTGAATCA CTTGATAGTC TTGAACTGGA TCAAGAGATT TTTGTCAGAG AAGCTAGTCC	1680
GGTCTATCAA GCCTTGTGG AGCAGAGTTT TGAGACGGAA TTGCGCAATC AAATCAATGC	1740
AGCTATTTTA GTTGAAAAGA CGGACTTTGC GCGCATTAAT ATGACCCTGT CCAATTATTT	1800
TTACAAGGTC AAACAGCAGT ATCCTTTGAC AGAAAAACAG CAGGAGCTCT ATGACATTTT	1860
AGGAGATGTT AATCCTGAGT ATGCCCTCAA GTATATGACG GCTTTTTTGT TGAAATTTCT	1920
CAAAAAAGAC CAGCTTATGC AGAAATGCCG TGATATCTTT GTGGACAGTT AGGTGTCTTT	1980
AGGCTATATT GTGCAAAATG AAGATGGAAA GTATGAGTTG GCTATCGATT TTGATAAGGA	2040
GAGGTTAACT TTCTACTTAG CGTGATTTCT TGTTTCTGAG TACATTGTTT GACTTTCCTT	2100

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AGTATTCGGT ATAACTATA TGTAACCGGT AACACATATC GGAATAAACT AAAGGAGACA	2160
ATCATATGTC ACTTGAAAAC AAATTGGAAC AAGCAACAGG CGCTGTCAAA GAAGGTTTGT	2220
GTAAGTTAC TGGAGACAGC AAGACAGAAC TTGAAGGAGC TGTTGAAAAA ACAGTTGCTA	2280
AGGCCAAAAG CGTTGTAGAA GACGCAAAAG GTGCTGTAGA AGGTGCCGTT GAAGGTTTGA	2340
AAAACGTTTT TACTAAAGAA TAGGAAAAAA TCAAGGGTTT CATTTTCCCT TGATTTTTTC	2400
TATTCCTATA AATAATTTTC TGCGACGGCT GTATCTCCTG GGTAGGATTC TTTCTTGCCC	2460
TGGATGATTT GGTAACAATC GGCTCCCTTA CCCGCAATAA TAACTGCATC TAATTCGTGA	2520
TTTGTGATAG CCATTGCCGC CTTGATGGCT TCTTGGCGAT CCGCAATCTT TTCAACAGGA	2580
TGATTGATGT AGCTACTAAT TTCATCTGCA ATGGCCATTG GGTCTTCATA GTTAGGGTCA	2640
TCAGCAGTCA GAAAGACTTG AATCTCAGGG TGTGATTGA GGAGGAGGCC AAAGTCCTTA	2700
CGACGACTTT CTCCTTGTG TCCTGTTGAT CCCAGAACCA GAGCAATCTT TCCGTTTGA	2760
TGAGTTTCAA CCACATTGAT GAGTTTTTTC AGACTATCCC CATTGTGGGC ATAGTCGATG	2820
AAGACCTTGG CTCCATTTTT CTGAGTGAGG ACTTCCATAC GACCAGGAAC GCGGGTTGCA	2880
GCGATGCCCT TTTTGATGTC CTCAAGACTT GCTCCGAGAC GGAGACAAGC AAGTCCAGCA	2940
GCAACTGCAT TTTCTTGGTT GAAGTTGCCA ATGAGTTGAA TATCATAATC TCCAGCGAGT	3000
TTACCCCTAG CTGAAAAGCT AAAGGCTTTG GAATCTCGA TTTGTTATC AAATTGGCTA	3060
CCATAGAAAT CATGGTCTTG ATCTTCAACC TGTTCTTTCA AGACTGAGAA GTGGTCCATG	3120
TCACTGTAA TGATGACTGC TCGGCTCTTT TCCATCAAGA GACGCTTGTG GTAGAAATAG	3180
TCTTCAAAGC TAGGGTGTTC AATCGGGCCG ATATGGTCTG GGCTGATATT TAGGAAAAC	3240
CCCACATCAA AGGTTAGACC ATAGACACGT TTGACCAGAT AGGCTTGACT GGAGACTTCC	3300
ATGATGAGGT GGTACGGTC ATTTTGACA GCCTGATTCA TCATGTCAAA GAGGTCAATA	3360
CTCTCAGGGG TTGTCAACGC TGACTTAAAG AAAGTCTCGC CATCAAGAGT TGTGTTTCATG	3420
GTGACAACA TAGCAGGTCT ATGCCCTTGA GATAAGATGT TATAGGCGAA ATAGGCTGCT	3480
GTTGTCTTAC CCTTAGTACC AGTAAAGGCA AGGAGTTTGA GTTTTTCCTG TGGATTACCA	3540
TAGAACTCCA TGGCAATCAA ACTCATGGCT TTCTTTATAT CGTTCACAAT GATGACAGGG	3600
ATACCGACTT CGTAGTCCTT TTCAGCTACA TACCAAGCTA ATCCTTGTGT TATAGCAGAA	3660
AGAAGGTATT CTTTTTAA GGCAGCGCCT TTTGCGAAAA AAAGAGTGTC TTCTGTTACT	3720
TTTCGGCTGT CGTAGCTGAT GCTATCAAAA ATAACCTTGC TGAGTTGTA GTGTAATGA	3780
CCTTGGTCAA TAATTTGCGG AAAAAGGCCA TCTTCTTTA AATATCTAA TACGGTTTCA	3840

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ATCTTAATCA TACTTTCTAT TGTAACCGA AAGTCGTAAA TTTACAAGTA ACAAGGAAAA	3900
GTTTATAATG GAAGATAAGG AGTTTTTCCT AGTTATCAAA ATTGAATGAG GAATCTATGT	3960
CGCACGAAAA CAATCACCAG CAGGCCCGA TGTTACGGGG GACTGCTTGG CTAACGGCTA	4020
GTAACCTTAT CAGTCGCCTA CTCGGGGCTG TTTACATTAT CCCTTGGTAC ATCTGGATGG	4080
GGGCTTATGC AGCTAAGGCA AATGGTCTCT TTACCATGGG TTACAATATC TATGCTTGGT	4140
TCTTGTTGGT TTCAACAGCG GGGATTCCAG TTGCGGTGGC CAAGCAAGTT GCCAAGTATA	4200
ATACCATGCG AGAAGAAGAG CATAGCTTTG CCCTGATTTC GAGCTTCTTA GGCTTTATGA	4260
CAGGACTAGG CCTGGTTTTT GCTTTAGTCT TGTATGTCTT TGCTCCTTGG CTAGCAGACT	4320
TGCTGCGCT GGGCAAAGAC TTGATCCCAA TCATGCAAAG CTTGGCTTGG GGAGTCTTGA	4380
TTTTCCCGTC TATGAGTGT ATCCGAGGAT TTTTCCAAGG GATGAATAAC CTCAAACCCCT	4440
ATGCCATGAG CCAAATTGCT GAGCAGGTCA TTCGTGTTAT CTGGATGCTC CTAGCAACCT	4500
TTATCATTAT GAAGCTCGGT TCAGGAGATT ATCTAGCAGC CGTTACCCAA TCAACCTTTG	4560
CTGCCTTTGT CGGTATGGTA GCCAGTTTTC CAGTCTTGAT TTATTTCTTT GCCCAAGAAG	4620
GTTCACTCAA AAGAATCTTT GAAACAGGAG ATAAGATTAA CAGTAAGCGT CTCTTGGTTG	4680
ATACCATTAA GGAAGCCATT CCTTTTATCC TGACAGGGTC TGCCATCCAG CTCTCCAGA	4740
TTTTG	4745

(2) INFORMATION FOR SEQ ID NO: 219:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1900 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 219:

CCTGATTGAC CTTATAATAA GGAACAAAAC ACAATGCACT ACCTTTTCAA CAAAAGAGTT	60
GCTGCTTGAT TAAAACCATC ACACCAGTTA TACCATTTTG CTTTCATCCC ATCTTGAGCT	120
AGGATACGAT CTTCTAAATC AAAAACAGAG TAAATCTTTC TTTCTCGCA AGCTTGGCGA	180
TAGAGATGAT ATAGTTCATC ACCACCATCT CTATCCCACT CAGCAGAAAT CGTATCCCGA	240
CCTGCCAATA AAGCCTGATA AGCCCTGTGA TGCCCATCTG TAATCAGCAA ACAATCTCCA	300
AAGGCAAGAA TACTGATTGG ATCGACTTGG ATTGTTTCTG CCGACTGGTA AAGCATCTGA	360
ATATCTTGCA ACTTCTTTTC TGATAAATAT AGTTGAGTCA GATGAAGATC TGCTATATTG	420
ACTTTCATTT CTTTCTCCTC AAGGGAATTC GATACTCACT TCTGTTTGCC TTAAATCGC	480

1229

CATTGGAAGC GGAgCTTGTC ATAAAAGGGA AACTCGATAA ACAGGACTCC CAAGCCCACA	540
CAGAGACTGG CAAGGACGTC TGATGGGTAA TGAACCTCCA GATAGACTCT TGATACCAGC	600
ACACTGACTA GGTAGAGGCC AAGGACGATT TGTACGATTT TTCTCCAGAC CTGATCTTTA	660
ATCCGCTGAC TAAGAATAAC AATCAAAGTC CCTACCATCA GCGTTACAGC TAGAGAATGC	720
CCACTTGGGA AGGAAAATCC CTTCTCCTCC ACCAGATGTA AAATAGCTGG TCGTGGGCGC	780
TGGTAGATAT TTTTAAAGGT CACGATTAAA AGACCTGCCA AAGCCAGATT TCCCAGCATG	840
AAGAACTTT CTATCTTCCA TCGCTTACGA TAAAAGACAA AAGCTGTAAT GACAACCCAA	900
GTGATAATCA CTGGGATATC AATCAGACGT GTGAGGGCTC GAAAAAGAAT AGTCAAATAA	960
TCTGGTAAGT CTCCTCGAAT GGCAGTCTGA ATCGATTGGT CAAAATTGAC CAACATTTCA	1020
GGGTAAATTT TGACCATGTA GCCAAGAATA ACGAAAAGTA AAAGGGCAA ACTGCCCTTC	1080
ATTAAAAATG TTTGTTTATC TCTCATAATG TTTTAAGGTT GGTTCAGA GAACATACAA	1140
CAACCAGAAT GAAACGGAAA AGATAACACC TTCAATCAAG TTTAAAGGTA ATACCATGGT	1200
CATTAGGTAG TTGGAAAGTC CCAAAATTTT TCCAATATCA AAGTTAGCAA ACTTAGCGTA	1260
CAAAGGAACA GCATAACAT AGTTGAGAAC CAACATGGCC AAGGTTAAAC CAATAGTTCC	1320
AGCTAGAGAG CCTAGTAGGA AACGAAGGGT TGTCCGTTC TTTTCCAAA TCAAAGCAA	1380
TACGATGACA AAAACTCCCA AAGCTACGAT ATTCATCGGC AAACCAATGT AAGTATTCAC	1440
TCCTTGGCTG TTAAGAAGCA ATTTCAAGAG TGAGCGAAGC AAGAGCACTC CTAGAGmCsc	1500
AGGCAAATCC ATGACCACCA GACCCACAAG GACTGGCAAG ATACTAAATT CGATCTTGAG	1560
GAAAGATGCC GCTGGTAAAA GCGGAAAGTC AAAGTACATC AGCACAAATG AGATGGCTGA	1620
TAGAATTGCA ATGGTCGAAA GTCGACGTGT GTTGTGCATA ACAGGTTCCCT CCAATTTTCT	1680
ATAAAATCAG AAGAAGTTGG AAAGGATTCC TCTATCTATT CTCACTTTTT ATATCCCAAA	1740
AGTTCCCTCT TACTCTATTA AAGAAAAACA AAGCAAGTGG TTACAATCCG GCTATAAATC	1800
TATCAAAACA GACAAGGCTA TTCTTTTCGTC TTCTCCCATC CAGACTATAC TGTCGGTTGT	1860
GGAATCTCAC CACATCACGT TGCCTCACG GACTTCTTTA	1900

(2) INFORMATION FOR SEQ ID NO: 220:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4692 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1230

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 220:

GGTTTCCAG CAGGAGCTTC TCCTTTATCA GAATGACCAT CCCATCTGCT CACGATAGAT	60
GAATAATGAT ATTTTTTACC ATGATAGTAA TTTGAAAAAG CCTAACCACC TCCTGAACCT	120
TCTCCATATG TCCATACTCC TCCATCTGGA TATTATACAG CAGCTGATGC AGCTCCCAAT	180
AATGTAAAC TTGAAATAAG AGCTAGAGCA AGTAATCTAT GTTTTTTCGT TTTCATTTTA	240
TTTTTTCCTT CAAAAAAGC ACACCTTGAG CAACAATGCA ACAAATAAA TCCTCCTCTC	300
TCTTTTATTG AAACCGCTTT CTTATGTGAT AAGAATAACT TTTTATTAT TTGTTGTCAA	360
GGAAAAATC GAATTTTTTA GATATTTTAC TATATTACCT CTGTGAATAA TATTATATAG	420
TAGTTTTATT TCAAAATAAT ATGCAACCAG TACTAACCAA ATATAAATA GATGCCATTA	480
ACGAATTTTA TTCAAGTTTT TCCCATTCAT ACTATACAAG TAAAGAGAT GGTGTTAACT	540
AAAAAGCAAT TCAAACTATT GTAAATTCCT TAGCAAAAAG AGAGCCGAAA CTCTCTTTTT	600
TATCTTCTTT TACTTTTTTT GACTGGCATG AGTGTGATGT CTCTAACACT AAAGTAAGCT	660
AGGATCAACA TGGCTATTGC TAGGAATATT TCTGTTGGTA ATTGAAAAAT TTTCAGAAAA	720
GATAGAACCA ATAAATCAA GAGTGCCACT AAAATACATA CCATAGCGAC GATATTGACA	780
GTCCCTTTAA TGCTTTCTGG TGTCGCAAAAT ACATAGAGTA GGAGCAGTAA AATTCCTAGG	840
ACTAAATAGA CCATCTTTCT CTCTTTCTAG CTCTTATCA GCTGATTTTT TCTTCTTGTT	900
AGCTTTCTCA CGCTCTGCTT TGTAAAGAT TTGTTTACGC AAACGGATAG ACTCAGGCGT	960
TACTTCCATG TACTCATCGT CGTTCAAGAA CTCAAGAGAC TCTTCAAGTG TCAAGATACG	1020
AGGCGTCTTG ATAACAGCTG TTTGGTCCTT AGTAGCTGAA CGAACGTTGG TCATTTGTTT	1080
TGCCTTCGTG ATGTAACTG TCAAGTCATT TTCACGAGAG TTTTCACCGA TGATCATTC	1140
TTCATAAACC TCAGTACCTG GGTGACAAA GATCGTACCA CGTTCTTCGA TAGACATGAT	1200
TGAGTAAGTT GTAGCCTTAC CAGCATCGAT AGAAACAAGG GCACCACGGT GACGTCCACC	1260
AATTTCCCTT GGAATCAATG GCAAGTATTG GTCGAAGGTA TGGTTCATGA TACCGTAACC	1320
ACGAGTCATT GATAAGAACT CAGTTGAGTA TCCAATCAAA CCACGCGCTG GAACAAGGAA	1380
GACCAAAACG GTTTGACCAT TACCAGTTGA AATCATATCC AACATTTTAC CTTTACGTTT	1440
AGAAAGGCTT TGGATAACAG ACCCTTGGA TTCTTCTGGA GTGTCGATTT GTACACGTTT	1500
AAATGGTTCA CATTTAATAC CGTCGATTTT TTTTACGATA ACTTCTGGAC GAGATACTTG	1560
AAGTTCATAG CCCTCACGAC GCATTGTTTC GATAAGGATT GACAAGTGCA ATTCTCCACG	1620
TCCTGAAACA GTCCATTAT CTGGTGAATC AGTTGGGTCA ACACGAAGGG AAACGTCTGT	1680
TTGCAATTCT GCCTGCAAGC GTTCTTCCAC CTTACGAGAA GTTACCCATT TACCTTCTTT	1740

1231

ACCAGCAAAT GGTGAGTTGT TGACCAAGAA AGTCATTGGA AGAGTTGGCT CATCGATGTG	1800
TAGGATTGGA AGAGCTTCTA CTGCATCTGT CGGAGTGATG GTTTCACCGA CAAAGATGTC	1860
TTCCATACCT GAAACGGCAA TCAAGTCACC CGCTTTGGCT TCTTGGATTT CACGACGTTC	1920
CAAACCAAAG AAACCGAAGA GTTTTGTAAC ACGGAAGTTT TTAGTTGTAC CGTCAAGTTT	1980
AGAAAGGGTA ACTTGGTCCC CAACCTTAAC TGTACCACGG AAGACACGAC CGATACCGAT	2040
ACGTCCAACG AAGTCATTGT AGTCCAAAAG TGACACTTGG AACTGCAAAG GCTCATCTGA	2100
GTTATCTACT GGAGCTGGGA TATGGTCGAT AATCGTGTC AAGATTGGTG CCATAGTCGC	2160
TTCTTGCTCA GCTGGATCAT CTGACAATGA AGAAGTTCGG TTGATCGCTG AAGCATAAAC	2220
CACTGGGAAA TCAAGCTGGT CGTCATCTGC ACCAAGCTCG ATGAAAAGTT CCAAGACTTC	2280
ATCCACTACT TCTGCTGGAC GAGCTGATGG CTTATCGATT TTGTTAACAA CCACGATTGG	2340
GACAAGGTCT TGTCCAAGG CTTTTTCAA TACGAAACGA GTTGTGGCA TGGTTCCTTC	2400
ATAGGCATCT ACGACCAAGA CAACACCGTC AACCATTTTC ATGATACGCT CAACTTCTCC	2460
ACCAAAGTCC GCGTGTCTG GTGTGTCCAT AATGTTGATA CGAGTTCCTG TGTAAAGCAAC	2520
GGCAGTATTT TTAGCAAGGA TGGTAATTC ACCGCTCTTT TCGATATCGT TTGAGTCCAT	2580
AGCACGCTCT GCCAATTCAG TCCGTGCATC AAGCGTTTCT GATTGTTTCA ATAATTCGTC	2640
AACCAGGGTT GTTTTACCGT GGTCAACGTG GCGGATAATC GCAATGTTAC GGATATCTTC	2700
TCTTAATTTT GTCATGATTT CCTCTATAAT ATTCAAAATT TATTTTCTAA CTGAACGATT	2760
ATACCATAAT TTCAAATAAA TAACATAACT CAAGCAAGTG TAAATGTTTT CACTCTGCTT	2820
TTCTTTTCAC GTCAAGCCTT TTCAAAGCGA GCGACTTATG ATAAGATAGG CACAGTATGC	2880
GTTTAGATAA TTTATTAGCT CAAGAAAAA TCAGCCGAAA GGCCATGAAG CAAGCACTCC	2940
TCAGAGGGGA AATTCTAGTC GATGGTTGCC CAGCCCGCTC CCTAGCTCAA AATATCGATA	3000
CAGGACTACA AGAACTCCTT TTTCAGGATC GAATCATTTCA AGGCTATGAA CACACCTATC	3060
TTATGCTTCA TAAACCTGCT GGTGCCGTTA CAGCCAACAA AGACAAGGAA CTTCGACCG	3120
TCATGGACCT GCTTCCATCT AACATCCAGT CTGACAAGCT CTATGCCGTT GGCCGACTGG	3180
ACCGAGATAC AACGGGACTC CTCCTCTTGA CCGATAACGG TCCCTTGGGC TTTCAGCTCC	3240
TCCATCCCCA ATATCATGTC GATAAGACTT ACCAAGTTGA GGTTAATGGA CTTCTAACAC	3300
CTGACCATAT CCAAACCTTT CAAAAAGGAA TTGTCTTTTT AGATGACACT GTCTGTAAAC	3360
CCGCAAACT AGAGATTCTA TCTGCAAGTC SCTCCCTCAG TCAAGCCTCT ATCACCATTT	3420
CAGAAGGAAA ATTTTCATCAA ATCAAGAAAA TGTTCCTCTC GGTTGGTGT AAGGTGACTA	3480

1232

GCCTCAAAAG AATCCAATTT GGGGACTTCA CATTGAACCC AGATTTAGCA GAAGGTAAC	3540
ACCGCCCTTT GAACCAAAA GAGTTACAAA TCATTAAAA CTATTTAGAG ATGAGTCGAT	3600
AAAACAAAA AAGCTTTAAA ACTAAAGCTT TTTCTTTTA TTTACCGAAA AATTAAGGCG	3660
ATTGCTACAA TCCAGTTAAC TACAGAAATC ACAATTCCTA AGATATTAAG AATCTTTTCT	3720
ATTTTATAGT CTAATTGTGA CTCTTTTGG TATGAAATAG CCAAGACCAA TCCTATGATA	3780
CCCAAAATCA GGCCTACAAT TGGAAATAAC AAACCAAGAA TAATCGACAA GATACCCACA	3840
AAAAGTGGAT TTTTCTTCTT TTCTTTTATG TTCTAAGAAC TCCTTAAAT TTATACAAAT	3900
TAATTATACT ATAAAACAAT AGCTTCATCC TATCATTCGA CTAATTTGGA AATAAGGTTA	3960
GCTAGCTTC ACTTCCCTT TCCAAGAATC CAAGCCATAA GAAAGGATAT AAATCTCAGA	4020
AAAACCTTGT TTTTCAAGT AAAGAGCTGC ATTTGTAACT CGTTGCGCAC GTTGGTTTTC	4080
GTAGAGAAGG ACAGGTTTAT CTTTACGAAG GGCTGCAAGA CTAGTTTCA ACTGACTTGA	4140
AGGAATATTG CGTGACCAA GGATATGTTT TCTGTGGAAT TCTGCTGGGT CGCGCAAATC	4200
AATCAATTGA CCCGTACGAA TCAAGGCTTC AAACCTCTCA TTGTCCACAA TTTTAGCCGC	4260
ACGGCGAATA CGAAGATAGT TAAAGCCCAT CCACGCCAAC ATTGCTAGTA TAAGTGCCCA	4320
CAAAATCCAA GTAACCATTA GTTCTTTTCT CCATTTTCT CAATATAATC CAATTCTACC	4380
TTGTGCTCTC TCGAAGAAC TGCTTCTGCC TCTAGATAGT CTAATTTATC CATCAACCCT	4440
GCATCGTAAA TCCGAGATAG TTCCAACCTC ATCAGTTCAA TATCATATAA GCGTTTCCC	4500
ATGTAACAA TAATACCAA TCGTTTGAGG AATTGCTGCA CATCATAGAA TGTTTTCATA	4560
AGACTCATTC TAGCAAAAT TTGTGTTTTT TTCAAGAAGA GACTCACACA ATGCTCCTTA	4620
TTTTCCTATC TTCTTTAGCG ATTCTAAGGC AAGTATGGTA CAATAAAAC ATGGGGATTC	4680
AACAATTACA TT	4692

(2) INFORMATION FOR SEQ ID NO: 221:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 706 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 221:

GCTAAAAAGC TGATAATCTT CGACTCCTGT ATATGATGTG TCTTTTCATG TAAGACACGC	60
GCCGCCAGAA TCATGGCAAG AGCTGCAAGA CTGGCAAGTA AGAAGCCGAT AAGATAGGCA	120
AAAAGATAAG TGAATTTGAC AAAGAAAGTC AAAAGAAGTA GGAACCAAAA GCCTCCTCCA	180

1233

AAAACCTACCA AAGTCTTTCG TAAATCCCAG ATTTTATCCA ACTGCTTGAC GAGGGAAGTC	240
GTCTGACGAA CGCCTACAAT AGTTGCTAAC ATACTTCCTA AAAAGAATGG ATAGACATGA	300
GTTAAACTGG AGAAATAAAC AGAGGAATAA GAGGTCACCTA GAAAACCTACC AATAAACATG	360
GAGAAGAAAC TGATCAAGAA GGCAACAGCA GATAAGAGAA AGACCATCCC CTTCAACTGA	420
CCATTTGATT TAGCTTGTTC GGATAAGAAC CAACTGCCA ATCCCCAAG AATATAGTAG	480
TGAACCTCAA CTGCCAACT CCAATTATGA ACAAACAAAT GAGGAATGAA CTGAGATTCA	540
TAATCCCAC CTGTTAGGAG TTCATAGAAG TTGGTCATAA AGCCTAAGAC GCCCGCAATC	600
TGGCCACCAA TTCCAGCAAC ATAGTCTTGG CGAACCAAGA AAGTAAAGG CATGGTCACC	660
AAGACCTCA AAACCACAGG TGGCACATC TCGATAAAG CGTCTT	706

(2) INFORMATION FOR SEQ ID NO: 222:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3236 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 222:

CAGCTGATGG GCAATATCAG TCATAGAAAT TTTTCAATT AACTTTTGAG CAATTTTTTG	60
GTGATGATA CGAGGGATTT GGTGATTTTT CTTTACCAGG GGAGTCTCAG CAACCATCAT	120
TTTTGAACAG TGATAGCACT TGAAACGGCG TTTTCTAAGG AGAATTCTAG AAGGCATACC	180
AGTTGTTTCG AGGTAAGGGA TCTTAGACGG TTTTGAAAG TCATATTTCT TCATTAGACT	240
TCCACAATCA GGGCAAGATG GAGCCTCATA ATCCAGCTTA GCGATAATTT CTTGTGGGT	300
ATCCATATTG ATGATATCTA GAATCTTGAT GTTTGGGTCT TTAATATCGA GCAGTTTGT	360
GATAAAATGT AATTGTTCCA TATGATTCTT TCTAATGAGT TGTTTTGTCG CTTTTCATTA	420
TAGGTCATAT GGGACTTTTT TTCTACACAA AAATAAGCTC CATAATATCC ATAGGGGATT	480
TACCCACTAC AAATATTATA GAGCCCGAAA ATATGGGAAA ACTGATCCTT GTTCTGCTT	540
TTGTCTATAG AAGAATAATA AAGATTATCT TCTTCAAATT CTCCGATATT CTCTAAAGTT	600
TTGTGCAAGT TGCACAGAAC TTGTTTATTT TTTTGGTCAT CTTGCCATAG AAATATAAAG	660
CGTTTTCATA TATAATATAA TTATCAAAAG ACAAAGGAG TTCACCTCAT GGTAGAATTG	720
AATCTTAAAA ATATTTACAA AAAATATCCA AACAGCGAAC ACTATTCAGT TGAAGATTTT	780
AACTTGAACA TCAAAGATAA AGAATTTATC GTTTTCGTAG GACCTTCAGG ATGTGGTAAA	840

1234

TCAACTACAC	TCCGTATGAT	TGCTGGTCTT	GAAGACATTA	CAGAAGGTAC	TGCATCTATC	900
GATGGCGTAG	TTGTCAACGA	CGTAGCTCCA	AAAGACCGTG	ATATCGCCAT	GGTATTCCAA	960
AACTACGCTC	TTTACCCACA	CATGACTGTT	TATGACAACA	TGGCTTTCGG	TTTGAAATTG	1020
CGTAAATACA	GCAAAGAAGA	CATTAACAAA	CGTGTTC AAG	AAGCAGCTGA	AATACTTGGA	1080
TTGAAAGAAT	TCTTGG AACG	TAAACCAGCT	GACCTTTCAG	GTGGTCAACG	TCAACGTGTT	1140
GCCATGGGGC	GTGCGATTGT	CCGTGATGCG	AAAGTATFCT	TGATGGACGA	ACCTTGTCA	1200
AACTTGGATG	CCAAACTTCG	TGTATCAATG	CGTGCTGAAA	TCGCTAAAAT	TCACCGTCGT	1260
ATCGGAGCTA	CAACTATCTA	TGTAACCTAC	GACCAAACAG	AAGCGATGAC	ACTTGCAGAC	1320
CGTATCGTTA	TTATGTCAGC	TACTAAGAAC	CCTGCTGGTA	CAGGTACTAT	CGGACGTGTA	1380
GAACAAATCG	GTACTCCTCA	AGAAGTTTAC	AAAAATCCAG	TTAACAAATT	CGTTGCAGGA	1440
TTTATCGGAA	GCCCAGCTAT	GAACCTTCATC	ACCGTGAAAT	TGGTTGGTAG	CGAAATTGTT	1500
TCTGACGGTT	TCCGTTTGAA	AGTGCCAGAA	GGAGCATPGA	AAGTTCTTCG	TGAAAAAGGC	1560
TACGAAGGAA	AAGAATTGAT	CTTTGGTATC	CGTCCAGAAG	ACGTGAATGC	AGAACCTGCT	1620
TTCTTGGAAA	CATTC C CAGA	CTGTGTTGTA	AAAGCGACTA	TCTCTGTATC	AGAACTGCTT	1680
GGTTCAGAAT	CTCACCTTTA	CTGTCAAGTT	GGTAAAGACG	AGTTTGTTCG	AAAAGTTGAT	1740
GCTCGTGACT	ACTTGCAAAC	AGGTGCAACA	GTTGAGCTTG	GATTTGACTT	GAACAAAGCA	1800
CACCTTCTCG	ATGTAGAAAC	TGAAAAAACA	ATCTACTAAA	ATAAATAAAA	TTCAAAGCAC	1860
TACAAGAAAA	GATATCTCTT	TATCAATTGT	AGTGGAGAGA	TATCAGTTAA	TCTAGGGAGA	1920
GAAACAAAAT	GCTTCTCTCC	TTTTTGCTAG	AGAAGTCATA	TTATGCATCT	ATATTGTGAT	1980
GCTCTTTAAT	ACTCTTCGAA	AATCTCTTCA	AACCACGTCA	ACGTCGCCTT	GCCGTACGTA	2040
TGATTACTGA	TTTCGTCAGT	TTTATCTGCA	ACCTCAAAGA	TGTACTTTGA	GCAGCTTACG	2100
GCTAGTTTCC	TAGTTTGCTC	TTTGATTTC	ATTGAGTATT	ATTTGTGGGT	ACCATCTACA	2160
AGTGAAGCTA	TATGCGTAAA	CTACGTGAGC	AATTGAATTC	GAAC TAGAGA	GGTAATAATA	2220
AATTTATGCT	ATAGTTATGG	TGACTTGTAT	GCTTTTGATT	CTAGTTTATC	AAATAATAGA	2280
TTAGAATTGT	CAGATAATAT	CATTTTGTGT	TATAATGAAG	AAAAACAGA	GGTGTTCAAA	2340
TGTCAGAAGC	AGGTCATAAG	TTTTTAGCAA	AATTGGGGAA	AAAACGCTTA	CGTCCAGGTG	2400
GAAAGCGTGC	CACAGATTGG	TTAATTGCAG	AAGGAGGATT	TTCAAAAGAA	AAGAGAATAC	2460
TAGAGGTTGC	GTGTAATAGG	GGAAC TACAG	CAATTGAGTT	GGCACAGCGT	TTTGGTTGCA	2520
AGATAACTGC	TGTTGATATG	GATGCTCAAG	CTTTAGAAGT	GGCTAAAAAA	TCTGCTGGAA	2580
CGGCAGGTGT	TGCTCATTTA	ATCAGTTTGT	AAAGAGCAAA	TGCAATGAAA	CTTCCTTATC	2640

1235

AAGATGCTAG TTTTGATATT GTTATAAATG AAGCTATGCT GACTATGCAA GCCGATCAAG	2700
CTAAGAAAAA ATGTGTAATG GAATATCTAA GGGTATTAAA ACCTGGAGGT CTTCTCTTGA	2760
CACATGATGT GCTTCTTAAG GAAGCTAAAG AGTCTATCAG ACAGGAATTA TCACAAGCAA	2820
TTCATGTAAA TGTAGGTCCT TTAAGTCAAG ATGGTTGGGA ACAGGTGATG ATAGAATCAG	2880
GTTATTGTGA TGTGAAAGCA TTGACTGGTG AAATGACATT AATGAAATTA TCGGGTATGA	2940
TTTATGACGA AGGTTTGCTA GGAAGTTTGA AAATTTGTGT AAATGCTTGT AAAAAGGAGA	3000
ATAGAAAGCA GTTTTAACT ATGTATAAAA TGGTTGCTAA GAATAAACAG AAATGGGGCT	3060
TTATGCGAT GGCTAGTTAT AAATCGTCAA AACGTTAGAT AATTATTGAA GTTAACTTTT	3120
CCTTTTTTCT TTCTTAAAA ATATGCTATA ATAGAGAGTA AAAAAGTTTG AAAGAAAGAA	3180
AAAGATGAAT TTAAAGATT ACATGCAAC AATTGAAAAT TATCCAAAGG GTACCG	3236

(2) INFORMATION FOR SEQ ID NO: 223:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2885 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 223:

CCTGACTTTT CAAATTGGTT AGTTTGCCAC ACTTGGTTTA TATGGTCGTG GAAAGCATGG	60
CTATTACTTC TCAAAGGGCG ATTTCTCACC CCATGAAAAG TGTCTATTTT TGTTTAGGTT	120
TGTAAGTTAA TTCATTGTCA CATATTACTC TTAACTGAT TGAGTGAGTA CCGCTTATAT	180
TTGATGCCAA ACGCCTTAAA AGTGTACCC TCAAGTCCTT TTAGAATACG GCTATAATTC	240
CGCTCATTGT AAAGTATCTT AAGCTCATCA CTATCTAGGT TGGTATTAAA AATGGTATTT	300
TCACGATTGT TTAGCAGGTC AAAGAGTAAA TCCTGCTCCC AGTCACTCTT AGGCTTAATA	360
ACAGCATTTT TTGCTCCTAA ATCATCAATA ATTAAGTAAT CAACAGACTT CATGAGTTCA	420
GTAGCTTCAA ACTCTGTAAG TGTGACACCT TTACCATAAT TCCACCCCTC TTTAATTGT	480
TTGATCATTT CCGTTAGGCT TACAAAAAGC AACTCTTAG GTTCTCCTTT TGTCTTATAC	540
CCCTCATTTA TACCTTTGGC AATAGCAACT GATAAAAGTG TTTTCCAAAT CCCTGTACCT	600
CCTGTGATAA GCGTATTTC CCTCATGCCA TCAAGATATT TTTGTACCTG ACCTTTTGCA	660
AATCTAAAA ATCGCTTTTC TTCTGATGTT ACAGCATTAA AATCATCAAA AGTTTTAGTT	720
TTAACTCAT CTGCTACATA GCTCTTATTG CTCATCAACA CATTATAAGT TTGCATATAT	780

1236

AGTTTAGCAT TCAAATTATC AGCAATCGCA TCTTCTTCAT CTTGCTTTTT CTGTTCTTCT	840
TGGCATTGTT CACAATAGGG TGGGATACAG CGAACTTCTT TTATTGCCTC TCCGTTCTCA	900
TTCCACCCCA CTACTACATG TCTTCTCCT TTGATTGTG TTAGCTGTAT TTCATGCTTA	960
GGACACAATT CGTCTAGTTT AAATGTCTCA ATATTCCCTA AACTAGATTG TAATGATTTT	1020
ATTTTCTGAC CTCCTAAAAT GGTTTTTCTT GTGTTGGTAT CCAATCTTCA TAGCTGGTAG	1080
GCTCTAGTTG ATTGTTTGC TGTTTTTTAG CCTCACGCGC TGCCCTGCTA TTTCTAACAA	1140
GTTCACCGT CAATAAATTG TCCTGTTTCC AACGGTTAAG GATTACCTTG ATGTATGCAA	1200
AGTTTGCTTT ACCCTGACTG ACAGCCTCTT TTAACGCCTC ATGGATAAGC TCTGGGCTAA	1260
AATCTTCTAG CATATACTGC AATTCTTGAA TCTGTAACGG TGACAATGCT TTACCTGTCT	1320
CAGCTCGCTT CATATTCAAC AAGTCGTCTA TTCCACACT GGTACTTTT TTATTACAA	1380
AATCAGAAAT CAGTTGAAAA ATGTTTGGAC TTTGTAGCTG GATTTCAGCC ATTACCTCAT	1440
CAAATCTGC TTGTGTCATG TTGTCTAAAT CTAGTGTCTG TGCATTGCCT CCTCAAACCT	1500
CTCTATAAGA CAACTTTAT TTGCTTTCTG AGTTCCATT TTAGAGTTAA AAAGAATATC	1560
TTTAAAGTT ACAGTAGCCT CTAAATACTC CTTTTCAGCA TGCTCTATAT ACGCCTGTTG	1620
CTCTGCTCG TTCTCAAAA AGTGCTTAGC TTGGCGTTTA AAGAATGCTT TTCGCATAGC	1680
GTCCATTTCA AAAATACCAG GGGCGAAAA CATTCCTGTA GTGCTTTAG AGACCGCTTC	1740
GATTTTATGG CTTTCATTCA ATTCAGGAAG TTCAATCCAA AGTAAACGGG ACAACTCATC	1800
TTTGATGGAT TTGTCTGAC TTCCAATAA AGAAAGGATT CTTAGGCCAT TTTCTTCGCT	1860
AATTTCTCGC ATTTCTGCGC TAATCTGTC TATACGTCTA GTTAAATTCT CATATGTTGT	1920
TTCTGTCATG TTTTACCTC TGTTCCTTG TTGGTGTGAT TTTTTAGCTT ATTTTATTAC	1980
TTCTAAACAT CATGTCTTA ATTTCTGAT AACTCATTTT CAATTCAATC ATAGCTATTG	2040
CCATATCCTC AAATGCCTGG TACTGCTCCA ACTCCTCACT AGTCAAGCTA TCGATACCGT	2100
TATAGCCCCC ACGCTCTCT CTTAACTGCT TAGCGTTCAT GTCTGTACT GCCTTTAGTA	2160
GCAAGTTGTT CATGGTGCTA TGCGCGTGCT TTGGTGCAAT AGGCCATGTT TCTATACTGT	2220
CATGCAAGGT TTTTCTTTT GGTTTTTCTA GCGCCCTCTG CAGACGAATT TCAGAAAGTT	2280
CCTCACGCAT TTCAAAGAAT GCTTTGACTA GGTTPAGTTT GAATTGCCGT ACTGTTCCGG	2340
TATTTCTTAA ATAAGTGATC AGAAAAGTAG CCTGTTGCTC GTTCAGAATA TAGGATTTT	2400
TAGGTTGTCC TCTAGTATCT AATTATGGA TTTTAAATCC AAGTATCCC AACTCTCAA	2460
AGTCAGCCTT ATTTCTCTT ATTAAGCGCG TGATAGTGTG GTGTTGTA CTAGCACATT	2520
CAGCGATGAT CTCGCTTGTG GTGTACGGCT CTTTCTTACC GTCCATGTAA ACTAGTTCCA	2580

1237

TTACGGTTCT ACCTCCTGTA TAAATCTGGT TAGCTTACTT TTTAATTGCC TCCTCTAGCC	2640
TCTTTTITAG CCTCTAAAAC GGCTTTGGCT AGTGGTTAAT ATTATTTACC ACTTGTCTCT	2700
ATAAACGTGT TAGAGGCCTT TATAACGACT TGTATCGCTG TATCGATATC CTCCTGGAA	2760
TAGTAGATTT ATTTTCTAAT ATCATTCAAG ACTTGTTTAA CCCATTCTCT GAAAGAAATA	2820
AAATTACATC TTCTTTATCC TTGGCATCTG CTTTGTCTGA GACAAATTAG AATGTCAATA	2880
CTTGG	2885

(2) INFORMATION FOR SEQ ID NO: 224:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3144 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 224:

TATCAATCCT TTCCCATTAT AGGAGCAACA GAGTGGGAGT AGTCATCTAA GGACTAATTT	60
ATGTATTTTT ACGAGTCAGT ATCTTGGGAT ACTGGTTTTT ACTTTTCTAG ACTTTTTCAG	120
TACTTGTAA AACTGGGATA ATTTTCGACT GTTTAACAGT TATTATGCAA AGTCTAAAAG	180
ATTAGAATTG TCAAAACAAT CCGTCTAGGC TTGATTTTAT CCTTTATTTA CTATAAATG	240
AGAAGGAAAA ATGTCAAAC TTTATATTGC AAATAGGAGA AATCATGACA AAAACATTAA	300
AACGTCCTGA GGTTTTATCA CCTGCAGGGA CTTTAGAGAA GCTAAAGGTA GCTGTTTCAGT	360
ATGGAGCAGA TGCTGTCTTT ATCGGTGGTC AGGCCTATGG TCTTCGTAGC CGTGCGGGAA	420
ACTTTACTTT CGAACAGATG GAAGAAGGCG TGCAGTTTGC GGCCAAGTAT GGTGCCAAGG	480
TCTATGTAGC GGCTAATATG GTTATGCACG AAGGAAATGA AGCTGGTGCT GGTGAGTGGT	540
TCCGTAAACT GCGTGATATC GGGATTGCAG CAGTTATCGT ATCTGACCCA GCCTTGATTA	600
TGATTGCAGT GACTGAAGCA CCAGGCCTTG AAATCCACCT TTCTACCCAA GCCAGTGCCA	660
CTAACTATGA AACCCTTGAG TTCTGGAAAG AGCTAGGCTT GACTCGTGTC GTTTTAGCGC	720
GTGAGGTTTC AATGGAAGAA TTAGCTGAGA TCCGCAAACG TACAGATGTT GAAATTGAAG	780
CCTTTGTCCA TGGAGCTATG TGTATTTTAT ACTCTGGACG TTGTACTCTT TCAAACCACA	840
TGAGTATGCG TGATGCCAAC CGTGGTGGAT GTTCTCAGTC ATGCCGTTGG AAATACGACC	900
TTTACGATAT GCCATTTGGG AAAGAACGTA AGAGTTTGCA GGGTGAGATT CCAGAAGAAT	960
TTTCAATGTC AGCCGTTGAY ATGTCTATGA TTGACCACAT TCCAGATATG ATTGAAAATG	1020

1238

GTGTGGACAG TCTAAAAATC GAAGGACGTA TGAGTCTAT TCACTAYGTA TCAACAGTAA	1080
CCAAGTCTA CAAGGCGGCT GTGGATGCCT ATCTTGAAAG TCCTGAAAAG TTTGAAGCTA	1140
TCAACAAGA CTTGGTGGAC GAGATGTGGA AGGTTGCCCA ACGTGAACGT GCTACAGGAT	1200
TTTACTATGG TACACCATCT GAAAATGAGC AGTTGTTTGG TGCTCGTCGT AAAATCCCTG	1260
AGTACAAGTT TGTCGCTGAA GTGGTTTCTT ATGATGATGC GGCACAAACA GCAACTATTC	1320
GTCAACGAAA CGTCATTAAAC GAAGGGGACC AAGTTGAGTT TTATGGTCCA GGTTTCCGTC	1380
ATTTTGAAAC CTATATTGAA GATTGTCATG ATGCTAAAGG CAATAAAATC GACCGCGCTC	1440
CAAA'TCCAAT GGAACATTG ACTATTAAAG TCCCACAACC TGTTCAATCA GGAGACATGG	1500
TTTCGAGCTCT TAAAGAGGGG CTTATCAATC TTTATAAGGA AGATGGAACC AGCGTCACAG	1560
TTTCGTGCTTA ATGTAGTTGT TTAGTTTAA AAAACTATGC AAAGCTCCAT ATACAACACT	1620
TAAACGAGAT TAAAGAATGG CGAAATCCCT TGATGCGCAA GAGATTAGCT GTCTTTTAA	1680
TTTTTTAAGT GATAAAGTCG GAGTTTAGGC ATCAAAGCCT ATCAAATTAA ACAAGAAGC	1740
GATGCTTAG ATATTTTGAA AAAAATTAAT AAGCAGAAAA CTCTCTATTA TTTGTGTGTA	1800
GAGAGTTTTT TGTTAATAAA ATTTACAAA ATGACATTTA TATATTGCAT TAAGTTAGAT	1860
ATATGATATA ATATTGTAA AAAGAGGCGC AACTTTTAA AATTAATGAG AATCAAAGAG	1920
AAAACCAATA ATATTAATGG AGGAATAAAA AATGTAAGTA AGCATTATGG TCATTCAATC	1980
ATTCTCAAAG ATATAAATTT TGCACTTAAC AAGGGTGAAT TTGTTGGTCT AGCAGGGAGA	2040
AATGGAGTTG GTAAGAGTAC GTTGATGAAA ATTCTTGTC AGAATAATCA ACCGACTTCA	2100
GGTAATATTA TAAGCAGTGA TAATGTTGGG TATTTAATCG AAGAACCAAA ATTATTTTAA	2160
TCTAAAACAG GTTTAGAGAA TTTAAATAT TTGTCAAATTT TATATGGTGT TGACTACAAT	2220
CAAGAAAGAT TTAGATGTTT GATCCAAGAG TTAGATTGA CTCAGTCTAT TAATAAAAAA	2280
GTAAAGACCT ATTCTTTGGG TACAAAACAA AAATTAGCTT TGCTTCTAAC TCTCGTTACG	2340
GAACCTGATA TATTGATTTT AGATGAACCG ACTAATGGTT TAGATATTGA ATCATCACAA	2400
ATAGTTTATG CGGTTCTAAA AAAATTAGCT TTACATGAAA ATGTGGGAAT TTTAATATCG	2460
AGTCATAAAT TAGAAGACAT TGAAGAAATTT TGTGAGAGAG TTCTTTTCTT GGAGAACGGG	2520
CTTTTGACAT TTCAAAAAGT AGGAAAAGAT AGTCATAATT TCTTGTTTGA GATAGCTTTT	2580
TCATCAGCTA CAGATAGAGA CATTTTCATT ACCAAACAAG AATTTTGGGA TATTGTTTAG	2640
GAAGAGGGAT TGAGAATTAC TATGTCTGGG AATATTCAAA ATAGTGAGCT TTTTAAATTT	2700
TTTAACGAAA ACTCTATTAA AGTAGTTGAT TTTGAAACTA AAAAGAGAC GCTTAAAGAT	2760
ATTTACCTAA ATCGTTCAAA ATAAAGGAAG GTTATAATCA TGAAATTAAA TAAACAGAAG	2820

1239

AATCGGATGA TTTACGTCTT GTCTAATTTT CTATATGCTA TCTCAGTTTC CATTATTTAT	2880
GCTTTGAATG GCATTGTGTT ACTAGTCATA GTAAGTAAAT TGGGTATTC AGGTGATTTA	2940
GGATTAAATT TTATAGTAGC TATTGTAGTC AATACAATTT TGTTAGTCCT GTTTTATTTT	3000
CTATTATCTT ACATTTTCTA TTTATACAAA TTGAAAAGTG GCTTGGTATw TGGTATTTTA	3060
GTAGCTTTAC TACTCTTTAT CTCTAATATA TTAAATACGA TGATGATGAA TACTAGTAAT	3120
GATTTGTTTA TCAAAGCAAT TGAA	3144

(2) INFORMATION FOR SEQ ID NO: 225:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 225:

TACGGTATTA TTTTAAAGGA GAAAGAATCA TGAAATCAA AAAATGGCTT GGTCTAGCAG	60
CCCTTGCTAC AGTCGCAGGT TTGGCTCTTG CAGCTTGCGG AAATCAGAA AAGAAAGCAG	120
ACAATGCAAC AACTATCAAA ATCGCAACTG TTAACCGTAG CGGTTCTGAA GAAAAACGTT	180
GGGACAAAAT CCAAGAATTG GTTAAAAAAG ACGGAATTAC CTTGGAATTT ACAGAGTTCA	240
CAGACTACTC ACAACCAAAC AAAGCAACTG CTGATGGCGA AGTAGATTTG AACGCTTTCC	300
AACACTATAA CTCTTGAAC AACTGGAACA AAGAAAACGG AAAAGACCTT GTAGCGATTG	360
CAGATACTTA CATCTCTCCA ATCCGCCTTT ACTCAGGTTT GAATGGAAGT GCCAACAAGT	420
ACACTAAAGT AGAAGACATC CCAGCAAACG GAGAAATCGC TGTACCGAAT GACGCTACAA	480
ACGAAAGCCG TGCGCTTTAT TTGCTTCAAT CAGCTGGCTT GATTAAATTG GATGTTTCTG	540
GAACTGCTCT TGCAACAGTT GCCAACATCA AAGAAAATCC AAAGAACTTG AAAATCACTG	600
AATTGGACGC TAGCCAAACA GCTCGTTCAT TGTCATCAGT TGACGCTGCC GTTGTAACA	660
ATACCTTCGT TACAGAAGCA AAATTGGACT ACAAGAAATC ACTTTTCAAA GAACAAGCTG	720
ATGAAAACCT AAAACAATGG TACAACATCA TTGTTGCAAA AAAAGATTGG GAAACATCAC	780
CTAAGGCTGA TGCTATCAAG AAAGTAATCG CAGCTTACCA CACAGATGAC GTGAAAAAAG	840
TTATCGAAGA ATCATCAGAT GGTTTGGATC AACCAGTTTG GTAATAAGAA ACAGGGAGGT	900
GGGAGAGAAA ATTCCACCTC TTGCTTTTGT ATAGACTATA GATTGTAAAG AAGACTATTC	960
GTTCATAGAA AGGTAGAGAG AATATGGTTT TTCCTAGCGA ACAAGAACAG ATTGAAAAAT	1020

1240

TTGAAAAGGA TCATGTAGCC CAGCATTATT TTGAGGTTTT GCGTACCTTG ATTTCTAAGA	1080
AATCAGTCTT TGCCCAGCAG GTTGGACTCA AGGAAGTCGC AAATTATCTG GGTGAGATTT	1140
TCAAGCGTGT TGGAGCTGAA GTGGAGATTG ATGAGAGCTA TACAGCGCCC TTTGTCTATGG	1200
CACATTTCAA GAGTTCGCGT CCAGATGCCA AGACCTTGAT TTTCTATAAC CACTATGACA	1260
CTGTGCCAGC GGATGGGGAT CAGGTCTGGA CAGAGGATCC kTTTACGCTT TCGGTCCGCA	1320
ATGGCTTCAT GTATGGGCGT GGGGTTGATG ACGACAAGGG TCATATCACA GCTCGCTTGA	1380
GTGCTTTGAG AAAATATATG CAGCACCATG ATGATTTACC TGTCAATATC AGCTTTATCA	1440
TGGAGGGAGC GGAGGAATCG GCTTCAACAG ACCTAGATAA GTATTTGGAA AAGCATGCAG	1500
ACAAACTCCG TGGGGCGGAT TTGTTGGTCT GGGAAACAAG GACCAAAAAT GCCTTGGAAAC	1560
AGCTGGAAAT TTCTGGTGGC AATAAGGGGA TTGTGACCTT TGATGCCAAG GTAAAAAGCG	1620
CTGATGTGGA TATCCACTCG AGTTATGGTG GTGTTGTGGA ATCAGCTCCT TGGTATCTCC	1680
TCCAAGCCTT ACAGTCTCTT CGTGCTGCGG ATGGCCGTAT CTTGGTTGAA GGCTTGTACG	1740
AAGAAGTACA AGAGCCCAAT GAACGAGAAA TGGCCTTGCT AGAACTTAT GGTCAACGAA	1800
ACCCAGAGGA AGTTAGTCGG ATTTATGGAT TGGAGTTGCC TCTCTTACAG GAGGAGCGGA	1860
TGGCCTTTCT AAAACGTTTC TTTTTCGATC CAGCGCTTAA TATCGAAGGA ATCCAGTCTG	1920
GTTATCAAGG TCAGGGTGTT AAGACTATTT TACCTGCAGA AGCCAGTGCC AAGCTAGAGG	1980
TTCTGCTGGT TCCGGGCCTA GAACCGCATG ATGTTCTGGA AAAAATTCCG AAACAGCTAG	2040
ACAAAAATGG CTTTGATAAG GTAGAATTAT ACTATACCTT GGGAGAGATG AGCTATCGAA	2100
GCGATATGAG CGCACCAGCC ATTCTCAATG TGATCGAGTT GGCCAAGAAA TTCTATCCAC	2160
AGGGCGTTTC AGTCTTGCCG ACGACAGCGG GGACAGGACC TATGCATACG GTCTTTGATG	2220
CCCTAGAGGT ACCAATGGTT GCATTCGGTC TAGGAAATGC CAATAGCCGA GACCACGGTG	2280
GAGATGAAAA TGTGCGAATC GCTGATTATT ACACCCATAT CGAATTAGTA GAGGAGCTGA	2340
TTAGAAGCTA TGAGTAGAGA TATTATCAAG TTAGATCAGA TCGATGTGAC TTTTCACCAA	2400
AAGAAGAGAA CCATCACAGC GGTTAAGGAT GTGACCATTG ACATCCAAGA AGGGGATATC	2460
TACGGAATCG TTGGATATTC TGGAGCAGGA AAATCAACCC TTGTACGGGT GATTAATCTC	2520
TTGCAAAAAC CATCTGCAGG GAAAATTACC ATTGACGACG ATGTGATTTT TGACGGCAAG	2580
GTGACCTTGA CGGCAGAGCA GTTGCCTCGT AAACGTCAAG ATATCGGAAT GATTTTCCAG	2640
CATTTTAACC TGATGAGCCA AAAGACAGCA GAGGAGAATG TAGCCTTTGC CCTTAAACAC	2700
TCTGAACTCA GCAAGGAAGA AAAGAAGGCT AAAGTAGCTA AGTTGTTGGA CTTGGTTGGT	2760
TTGGCAGATC GTGCTGAAAA CTACCCTTCA CAACTATCTG GAGGGCAAAA ACAGCGTGTG	2820

1241

GCAATTGCGC GTGCCTTGGC CAATGATCCA AAAATCTTGA TTTGAGACGA GTCAACTTCT	2880
CCCCTTGATC CGAAGACAAC CAAGCAGATT TTGGCCTTGT TGCAAGATTT GAACCAAAAA	2940
TTAGGCTTGA CTGTTGTCTT GATTACGCAT GAAATGCAGA TTGTCAAAGA CATTGCCAAC	3000
CGTGTTCAG TTATGCAGGA TGGGCATTGT ATTGAAGAGG GTAGTGTGCT TGAAATCTTC	3060
TCAAACCCTA AACAACTTT GACTCAAGAC TTTATCTCAA CAGCTACAGG TATTGACGAA	3120
GCCATGGTCA AAATCGAGAA GCAAGAAATC GTGGAACACT TGTCTGAAAA CAGTCTCTTG	3180
GTGCAACTCA AGTACGCTGG AGCTTCAACA GACGAGCCAC TTTTGAATGA ATTGTACAAG	3240
CATTACCAAG TAATGGCTAA TATTCTCTAT GGAATATCG AAATCTCGA TGGTACTCCT	3300
GTTGGAGAAT TGGTGGTGGT TTTGTCAGGT GAAAAAGCAG CGTTGGCAGG TGCCCAAGAA	3360
GCCATTCTGC AAGCAGGTGT ACAACTAAAA GTATTGAAGG GAGTACAGTA AGATGGAATC	3420
ATTGATTCAA ACCTATTTAC CAAATGTCTA TAAGATGGGT TGGGCTGGTC AGGCAGGCTG	3480
GGGAACGGCT ATCTACTTAA CTCTTTATAT GACAGTTCTT TCCTTCATTA TCGGAGGCTT	3540
CTTGGGGCTA GTGGCAGGTC TCTTCTCGT CTTGACAGCG CCAGGTGGTG TCTTGGAGAA	3600
TAAAGTCGTA TTCTGGATTT TAGACAAAAT TACCTCAATT TTTCTGCGG TTCCCTTTAT	3660
CATCCTCTTG GCAATCTTGT CACCACTTTC TCACTTGATT GTTAAACAA GTATCGGGCC	3720
AAATGCAGCC CTTGTCCAC TTTCTTTGC AGTCTTTGCC TTCTGG	3766

(2) INFORMATION FOR SEQ ID NO: 226:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2520 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 226:

TGTTGCTGAG TTAATCGGTA CGTTCATGTT TGTATTCGTC GGGACAGGAG CTGTTGTTTT	60
TGGAAATGGT CTTGATGGCC TTGGTCACCT TGGAAATCGCC TTTGCCTTTG GTTTGGCAAT	120
CGTGGTGGCA GCCTACTCAA TCGGAAGTGT TTCAGGTGCT CACTTGAACC CGGCTGTTTC	180
GATTGCTATG TTTGTAAACA AACGTTTGTC ATCTTCAGAA CTTGTAAACT ACATCCTTGG	240
TCAGGTTGTT GGAGCTTTCA TCGCTTCTGG CGCTGTCTTC TTCTCTTGG CTAATCAGG	300
TATGTCAACT GCTAGTCTTG GTGAAATGC CTTGGCAAAC GGTGTCACTG TCTTTGGTGG	360
TTTCTTGTTT GAAGTCATCG CAACCTTCTT GTTGTATTG GTTATCATGA CTGTGACTTC	420

1242

AGAAAGCAAG	GGCAATGGCG	CGATTGCTGG	TTTGGTAATC	GGTTTGTCTAT	TGATGGCGAT	480
GATTCTTGTC	GGATTGAAGA	TTACTGGACT	TTCAGTAAAC	CCAGCTCGTA	GCTTGGCACC	540
AGCTGTCTTG	GTAGGCGGCG	CAsCCTTCAA	CAAGTTTGA	TTTTTCATCCT	TGCACCAATC	600
GCTGGTGGAG	TTCTTGACAG	CCTTGTGCA	AAAAATTTCC	TTGGAACAGA	AGAATAATTG	660
AAACTCAAAA	AGCCTTGCTC	CTCATCTTGA	GGAACAGGGC	TTTTTCGTAT	GATACTCTTC	720
GAAAATCTCT	TCAAACCACG	TCAGCTTCAT	CTTGCCGTAG	TATGGTTACT	GACTTCGTCA	780
GTTCTATCCA	CAACCTCAAA	ACAGTGTITT	GATCTGACTT	CGTCAGTTCT	ATCTGCAACC	840
TCAAACAGT	GTTTAAAGCT	GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	ACAGTGTITT	900
AAGCTGACTT	CGTCAGTTCT	ATCTGCAACC	TCAAACAGT	GTTTAAAGCT	GACTTCGTCA	960
GTTCTATCTG	CAACCTCAAA	ACAGTGTITT	AAGCTGACTT	CGTCAGTTCT	ATCCACAACC	1020
TCAAACAGT	GTTTGTATCT	GACTTCGTCA	GTTCTATCCA	CAACCTCAAA	ACAGTGTITT	1080
GATCTGACTT	CGTCAGTTCT	ATCCACAACC	TCAAACAGT	GCTTTGAGCA	ACcTGCGGCT	1140
AACTTCCTAG	TTTGCTCTTT	GATTTTCATT	GAGTATGACT	TTAGCGGTTG	TCAATTTTCT	1200
CTGGATAAAG	GTCGTGTTGG	AAGAGGCGTT	GTTCTGCCAA	GGCCTCATAc	TTAGTTCCTT	1260
GCTTACCGTA	GTTGTAGTAG	GGGTCGATTG	AAATGCCACC	GCGCGGAGTG	AATTTTCCCC	1320
AGACTTCTAA	ATAGCGAGGG	TCTAGCAAGT	TGACCAAGTC	TTTCCCGATG	GTGTGATAC	1380
AGTTTTCGTG	GAAATCTCCG	TGGTTTCGGT	AGCTAAATAG	ATATAGTTTG	AGGGATTTTG	1440
ACTCGACACA	GAGCTTGTC	GGAATGTAGG	AAATATGAAT	CGTCGCAAAG	TCTGGCTGAG	1500
CAGTGATTTG	TCCCAGCAGA	GACATATCGA	GGATATGGTG	ACGAATGCCC	TGTTCCCTAG	1560
CGATTTCTCT	AGTAATTGTA	ATTTTCGAGG	GATGACGTTG	GGCGTAGGCA	AAGGTGACAG	1620
CTTCGACTGT	TTCATAGTGT	TGCATGACCC	AGAAAAGGCA	GGTTGTTGAA	TCTTGACCAC	1680
CACTAAAGAC	GACCAAGGCT	AATTGACGTT	TCATAGTACT	CCTTCCAAAA	TGGGAAATGT	1740
TCAGAGCACG	CAAAAAGCTC	CCATTAGGGA	GCTAAAAAAT	ACCAAATCGA	GGTTTTTTTA	1800
GCGATGGCAT	ATCCCAAACA	TCGTAATATT	CTACTTATAT	AGTAAAAATGA	AATAAGAACA	1860
GGACAAATCG	ATCAGGACAG	TCAAATCGAT	TTCTAACAAT	GTTTTAGAAG	TAGAGGTGTA	1920
CTATTCTAGT	TTCAATCTAC	TATAGTCTAG	CATATTTTTT	GAAAAATGGC	AAAGGGCAAG	1980
AAAAAAGAGA	CCAAAGAAAG	TACTTGGTCT	CTCGTTTGAT	TAGCTCAATT	CAGCAATGAT	2040
GGCCTTGATT	TGTTCTGCTG	TGTGAACACC	TGCAACTTGT	TTGACAACTT	GGCCGTCTTT	2100
TTTGAAGAGA	AGAGTTGGAA	TAGACATGAT	TCCAAAAGCA	CGAGCTGTGT	TTGGATTTTC	2160
ATCAACGTCC	ATTTTAACGA	TTTTCAAGAC	ATCTTCTGAA	AGTTCCTCAG	ACAATTTGTC	2220

1243

CAAGATTGGA CCTTGCATAC GACATGGACC ACACCAAGTT GCCCAGAAGT CTACTAAGAC	2280
CAAACCGTCT TTTGTTTCTT GTTCGAATGT TGCATCTGTA ATTGCTTTTG CCATTGTATT	2340
TCTCCTTTTT TTAGTTATAT TGGCTTAAAT CTGTGTTTCAT GAGATAGAAG AAGATATCTC	2400
CATAAGTCCC ATGGTAGTCC AAATTATGAC CCTTGTAAGT TAATTTTGG ACAGGGTAGT	2460
AkkCTGCGAC GCCGATAAGG CAAGCTTGTT GCGAACGTTT AAAGTCTTCA TAAGACTCGG	2520

(2) INFORMATION FOR SEQ ID NO: 227:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5278 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 227:

ACTCAGTTAG ATTTTGTTTT CAAAACAAC GAAGAAAAAG ACCATGTTGC TCTACTTGA	60
AGAATTGGCT CCGAACGTGT TTATCGATAT ATTAATAAAA AATATTTAGA TTTACCGGAA	120
ACATTCGAAA ATTATAATGT TTTGTACCA GAAGCTAATG GAAGTGGTGC CTTAGGTGAA	180
GTCTTATCAA CACCCCTAAT CGGGGAACCC CTAATCGGGC ATACAGATAC TTTTATCT	240
ATTGGTAATT TAAAACAAA ATTTGAAGCC GATGCTTGTG TTAAATTTAT TAAACTAAA	300
TTGCTAGAG TATTATTAGG TGTTTTGAAA GTTACTCAGC ATAATTCACG CAAAACCTGG	360
TATTACGTCC CCCTCCAAGA CTTTACGGTC AATTCGGACA TTGATTGGAC ACAATCAGTG	420
ACTGATATTG ACCGCCAGCT TGATCAAAAA TATGACTTTT CCCCTGAAGA AATGCTCTT	480
ATTGAGAATC ATGTAAGGGA GATGGATTAG AAAAGTATTT TTATTTGACA AATAGTGCTC	540
AATGATCTAA AATGACTATA TAGGATTAGG TCAGGAAGCA TACGATGCCC TGACCTTTT	600
TGTACTTATG AGATGAGAAA GTCATTTGTT AGATAAATTG ACTCGTTAGC AAACGTTCAA	660
AAAAGGAAAA CTTATGCCAG TAGAAATTAA AACCCTAAA GAAATTCATC CTAAATCTA	720
TGCCTACACC ACACCGACAG TAACCGATAA TGAAGGCTGG ATTAAGATTG GGTATACAGA	780
ACGTGATGTC ACACAACGTA TCAAGGAGCA AACGCATACA GCTCATATAG CTACAGATGT	840
CTTATGGACT GGTGATGCAG CTTATACAGA AGAGCCTGAT AAGGGGAAAA CTTTCAAGGA	900
CCATGATTTT CACCATTTCC TTTCTTTCCA TGATGTAGAA CGTCGTCCCA AGACGGAATG	960
GTTCATTTT AATGGAATC CTGAAAAATC AAAAAATCTT TTTGATAAGT TTGTTTCAGCA	1020
TGATTTGTCT GGTATCAGC CTGAAAAAGG ACAGGACTAT ACTCTGCGAC AAGAGCAAGA	1080

1244

AGAAGCAGTT GCTAAGACAT TAGCTTATTT CCAAGAACAT GCTGGAGGCA AGTTTCTCTG	1140
GAATGCCAAG CCACGCTTTG GTAAAACCTT GTCTACCTAT GACCTAGCTC GACGGATGGA	1200
AGCTGTCAAT GTCCTAATTG TAACAAACCG CCCTGCCATT GCTAACTCAT GGTATGATGA	1260
TTTTGAAACA TTCATAGCAG GTCAAACGAC TTACAAGTTT GTTCTGAAT CAGATAGCCT	1320
TAAGAGTCGT CCAATCTTGT CACGACAAGA ATTTCTTGGT ATTTTAGCTG ACGATGTAAG	1380
ACAACTTGCT TTTATCAGTC TCCAAGACTT GAAAGGATCT GTTTATTTAG GTGGAGAGCA	1440
CGATAAACTC AAATGGGTAA CTGATCTGCA TTGGGACTTG TTGGTTATTG ACGAGGCTCA	1500
TGAAGGAGTT GATACCTTCA AGACTGACCA AGCCTTTAAT AAGATTCGAC GAAATTTTAC	1560
TCTGCATTTG TCAGGTACAT CATTTAAAGC ATTGGCTAAA GGAGATTTTA CAGAGGAACA	1620
AACTTACAAC TGGTCTTATG CTGATGAGCA GGCTGCTAAG TATTCGTGGT CTCTTGAGCA	1680
AGAAGAGGAA AATCCTTATG AAAGCTTGCC TCAGTTGAAT CTCTTTACCT ATCAAATGTC	1740
TCAGATGATT GGCAGAAAAGT TAGAAAAAGG CGCTCAGATC GATGGTGAAA ATATTGACTA	1800
TGTTTTTGAC TTAAGTGAAT TTTTCGCTAC AGATGATAAA GGGAAATTTA TTCATGAGCA	1860
TGATGTCAGA AATTGGTTAG ATACTCTATC AAGCAATGAA AAATATCCAT TTCAACCAA	1920
AGAACTCCGT AATGAACTCA AGCATACTTT TTGGCTTTTA GAACGTGTCG CTTGCGCCAA	1980
AGCATTAATA GCCCTACTAG AAGAACACCC AATCTATGAA AACTATGAGA TCGTTCTAGC	2040
TGCTGGTGAC GGACGTATGT CCGAAGAAGA CGATAAAGTC AAACCAAAT CCTTGGAATT	2100
GGTTAGAAAA GCGATAGCAG AGAATGACAA AACCATTACC CTATCCGTTG GTCAGCTGAC	2160
GACAGGTGTC ACTATCCCTG AATGGACAGG TGTATTGATG TTATCAAAT TGAAATCACC	2220
AGCTCTTTAT ATGCAGGCCG CCTTCCGTGC TCAAAATCCT TACTCATGGA GCGATAACAA	2280
AGGAAATCAC TTTGCGAAAG AAAGAGCCTA TGTATTGAC TTTGCGCCGG AAAGAACCTT	2340
GATTCCTCTT GATGAGTTTG CCAACAACTT ATTGCTTGTA ACTGCAGCTG GTAGAGGAAC	2400
TTCAGCTACA CGCGAAGAAA ATATTAGAGA ATTATTAAAC TTCTTTCCAA TTATTGCCGA	2460
AGACCGTGCT GGTAAAGTGG TTGAAATTGA TGCAAAGGCA GTTCTAACCA CTCCTCGCCA	2520
GATAAAAGCT AGAGAAGTTC TTAAACGAGG TTTTATGTCC AATCTCTTAT TTGATAATAT	2580
TAGTGGTATT TTCCAAGCAA GTCAAACAGT TTTAGATATT TTAAATGAGC TGCCAGTTGA	2640
AAAGGAAGGG AAGGTACAAG ATAGTTCTGA TTTATTAGAT TTTTCAGATG TTACAGTCGA	2700
TGATGAGGGA AATGCAGTAG TAGACCATGA AATTGTAGTT AATCAGCAAA TGCGACTTTT	2760
TGGTGAAAAA GTTTATGGAC TTGGTGAATC TGTGCTGAG TTAGTCACAA AAGATGAGGA	2820
ACGAACCTCA AAACAGCTGG TCAATGACTT GAGTAAGACC GTTCTTCAG TGATTGTAGA	2880

1245

GGAATTGAAA GCAGATTATT CTCTAAAAAC AAGGGAAACT GAGCAAATTA AGAAACAAAT	2940
TACAGCAACA CTTGAGAATG AAATTCGAAA AAATGATATC GAAAGAAAAA TTTCTGAAGC	3000
TCATATCAAG CAAGAGTTGC AACAGCAGCT CAAAGAAGCA AATGATAAAG CGCAAAAAGA	3060
TAAGATTCAA GAAGATTTCG AAAAACGTTT AGAAGAAAAA AAACCTCATTC ATAAAGAAAA	3120
ACTAGAACAA AACTCAAAA AAGAAGTGGG AAAAATGCCT GAGAAATTTA TCGAACAGGT	3180
TGAGATAAAA CGTGTGGAAC AGTTGAAACA ATCAGCTCAA GATGAAATTC GTGACCATTT	3240
ACGAGGGTTT GCAAGAACAA TTCCAAGTTT TATTATGGCT TACGGTGATC AAACCTCTAAC	3300
ACTTGATAAT TTTGATGCCT TTGTTCTGTA ACATGTTTTT TATGAAGTAA CAGGGATTAC	3360
GATTGATCAG TTTAGATATT TGCAGATGG TGGGCAGGAT TTTGCAGGGC ATCTCTTTGA	3420
TAAAGCAACA TTTGACGAAG CTATTCAAGA ATTTCTTCGC AAGAAAAAGG AGTTGGCGGA	3480
TTATTTTAAA GATCAAAAAG AAGACATTTT TGACTATATT CCACCGCAGA AGACCAACCA	3540
AATTTTCACT CCTAAACGAG TGGTGAAGG GATGGTAGAT GATTTGGAAA AGGAAATCC	3600
AGGGATTTT GATGATCCAT CTAAGACTTT TATTGATTTA TATATGAAGT CAGGCCTCTA	3660
TATTGCAGAA CTTGTGAAGC GGTATATAA TAGCAATGGC TTGAAAGAGG CCTTTCCAAA	3720
TCCTGAAGAA CGCTTAAAC ATATTTTGA AAAGCAAGTT TATGGATTTG CTCGCTCTGA	3780
GATTATCTAT AACATTTCCA CTAATTTTAT ATTTGGCAAT CTTTCTAAAG ATATCAGTAG	3840
GAAGAATTTT GTTTTAGCAG ATACCATTCC AGCGGCTAAA GAAGGGAGCA TTCAAAAGTT	3900
GGTTGATTCC TATTTTGAAA ATAATTAAAA AGAAGGCCGA GTCAAAATTC TTTGAAATCA	3960
GAAAAACGC ATAATATTGA GTGCTTTTGT ACTGCCCCC AAAAGTTAGA CAGAAAAAAT	4020
CTAACTTTTG GGGGGCAGTT CAGACAATCC TTGGTATTAT GCGTTTATT GTGGGAAGAT	4080
GTATAATGGA TTGAAATAAG ATATGAACAA ATCAATTAGG AATTTAAAGC ATTTTATAAC	4140
AACGTTTtag AGTAATGGG GGCTATTTCa ACTTCAACCT ACTATAATAC AGAAAAAAC	4200
AACTCCCTGA TAATTCAAGG AGTTGCTAT AGTTAAATTA GTTTTtagAA GCTTCTTGGA	4260
ATTCTGGGTT TTTCCATGCT TCGTCAATGA TAGCTTGTA TTCTTTAGCA GATGCTTGCA	4320
TTTTTTGAGT TTCTGCGTCG TTCAATGGGA TATTTACTGG ACGAACGATA CCATGTGCAC	4380
CAACAACAGC TGTTTGACCG ATAAAGACAT TCTCAACTCC GTATTGACCT TCTTGAATA	4440
CTGAAAGTGG AAGTACTGCG TTTTCATCGT CAAGGATTGC TTTAGTGATA CGAGCAAGGG	4500
CTACTGCGAT ACCGTAGTAT GTTGCACCTT TTTTGTGAT GATTGTGTAG GCTGCATCAC	4560
GAACACCTTC GAACAATTCA ATCAATTcAG CTTCTTGAAC ATTTTGAGTG TCTTTAAGGA	4620

1246

ATTCTTCAAG GTTTACACCA GCGATGTTAG CGTGTGACCA AACAGCGAAC TCAGAGTCAC	4680
CGTGTTCACC CATGATGTAG GCGTGCACTG AACGAGCATC CACATCCAAT TTTTCAGCAA	4740
GTGCTTGACG GAAACGAGCT GAGTCAAGTG AAGTACCTGA ACCGATAACG CGTTCCTTAC	4800
GGAAACCAGA GAATTTCCTAA GTTGAGTAAG TCAAAACGTC AACTGGGTGA GCAGCAACAA	4860
GGAAGATACC TTTGAAACCA GATTCAACAA CTTGAGTTAC GATTGATTTG TTGATAGCAA	4920
GGTTTTTACC TACAAGGTCA AGACGAGTTT CACCTGGTTT TTGAGGTGCA CCTGCAGTGA	4980
TCACAACAAG GTCAGCGTCT GCACAGTCAG AGTATTGAGC TGCATAGATT TTTTTAGGTG	5040
AAGTGAAGGC AAGGGCGTGA CTAAGGTCAA GCGCATCACC AACAGCTTTT TCATGCAATT	5100
GTGGAATTC GATAATCCA AGCTCTTGTG CAATTCCTTG GTTAACAAGT GCAAAGCGT	5160
AAGATGAACC TACAGCACCA TCACCGACAA GGATAACTTT TTTGTGTTGT TTAGTTGAAG	5220
TCATTGTTTT AAACATCTCC TTAATTTTAT TAGGGGATTT TCCCTAGACA ACTTCATT	5278

(2) INFORMATION FOR SEQ ID NO: 228:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1941 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 228:

ATAAGGAATC TCTAAAAAT TTTAAGGAGA ATCTAGCAAA TGGATTTTAC ATGGGCACTG	60
AAGTATGCCA CTGAATTTTT GGGAAGTACC ATTTTGATCA TTCTGGGAA TGGTGCAATT	120
GCCAACGTTG AACTTAAAGG TACGAAAGGT CACCAAAGTG GCTGGATCGT CATCGCTGTT	180
GGTTATGGTA TGGGGGTAT GATCCAGCC TTGATGTTTG GTAACGTATC TGGGAATCAC	240
ATCAACCCTG CTTTCACTCT AGGGCTTGCA GTTAGCGGTC TTTCCCTTG GGCACAAGTG	300
GTACCTTACA TTATCGCGCA AGTCTTGGG GCTATCTTTG GCCAAGCCTT AGTTGTGGCA	360
ACATACCGTC CATTCTACTT GAAAACTGAA AACCCAAATA ACATCTTGGG AACTTTCTCA	420
ACTATTTCAA GTATTGACCA TGGTACAAAA GAAAGTCGCT ATGCAGCAAC TGTCAATGGT	480
TTGATTAATG AGTTTGTGG TTCATTTGTT TTGTTCTTTG CAGCTCTTGG TTTGACTAAA	540
AACTTCTTTG GTGCTGAAGT GCTTCAATTC ATGAAACAAA AGGCAACAGA AGCAGGACAA	600
ACAGTTGATT TTTCTGACTT GGCTATTAAA GCACAGGTGG CTCCACACAC TGCTTCAGGA	660
CTTCTGTGG CTCACTGGC ACTTGGATTC CTCGTTATGG CTTTGGTAAC ATCACTTGGA	720
GGACCTACAG GACCTGCCTT GAACCCAGCC CGTGACTTGG GACCACGTCT CCTTCATGCT	780

1247

TTCCTTCCCA AATCAGTTCT TGGTGAGCAT AAAGGCGATT CAAAATGGTG GTATTCCTTG	840
GTACCAGTAG TAGCACCTAT CGCAGCAGCA ATTGCGGCAG TAGCTGTATT CAAATTCCTT	900
TATCTCTAAG AAATAGCTCC TTAAACATTT GAGTGAGCAC CATCTATAAG TAAGAGAGGA	960
TCAGACTGGk TCTCTCTTTT kGATTTTTaG GGAAATGAAA GAACTCTAAA CAAACTCCTC	1020
TCCAGCAGTG GTTTAGAAGT CTCAGTGGGC TATTCCAGCT TCAATGGACT ATAGTAGGTT	1080
GCAGTTGAAA TAATAGACCC TTGTTTCTAA AACATTGTGA GAAATTGGTT TGAATTCCTC	1140
AATCAAATTG TGCAGTTTTC ATTCTACTAT ATATTATCGG AATATTATCG GAGATGGGTT	1200
CCCTATCTTG TAAGTCTGCT TTATAGTGGG TTGAAGTTGG AATAGTCCTC CCTTCTTTCT	1260
CAACATTTGT GAGGAATTGA TTTACCTTCC TCAACAAAAT GTTCAGTTTC TATTTCAATT	1320
TACTATAAAA TAAGCGATTA GGGGGGCTAT TCTTCGACCT ACATTGACTC TGCTGAGTCC	1380
TATGATTGTT ATCGTTTTAT CTGCAATTTT ATACTCAATG AAAATCAAAG GGCAAATAA	1440
GAAGCTAGCC GCAGTTGTT CAAAACACAG TTTTGAGGTT GTATAGTAGA TTGAACTAG	1500
AATAGTACAC ATCTACTTCT AAAACATTGT TAGAAATCGA TTGACTGTC CTGAACGATT	1560
TGCCCTATTC TTGTTTCATT TTACTATATA AACCAGAGAC TGTTTACATT TTCAGCAAGT	1620
GAGTGGATGG ATAATGCTGA AAATCCTTG AAGGATAAGT CTATTTAGTA CTTTCTATTA	1680
ATTAGTTAAA TTTTACCAA GAATAATTCA CAAAACGTT GTAAAACACT TGCAATTAG	1740
CTGAAATTTG ATAAATAGT AAGGAAAGTT AGACTGTATT GCCTACTGTC TATCTATAAA	1800
ATATATTTTA TTGGAGGCTT TTACTCAAAT GGCAAAAGAA AAATACGATC GTAGTAAACC	1860
ACACGTTAAC ATTGGTACTA TCGGACACGT TGACCACGGT AAAACTACCC TAACTGCAGC	1920
TATCACAACCT GTTTTGGCAC G	1941

(2) INFORMATION FOR SEQ ID NO: 229:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 755 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 229:

ATTTGAAGAA ATTGAAGAAA TCGTAGCCCC TACAGATGGT GAATTTTGG GGGAAGTTT	60
ACTTGGAAC TGGGTAGTTC TCTTAATTGG AGTAGCCTGT TGTTAAAAAG ATAGGGAGTG	120
ATAATCATGC AAGATAACTT TTTATTTGAG GAAATTGAAG AAATTCAGT ACCAGTTAAT	180

1248

GATTTTTCAG CTGGACTTGC AACAGGTATC GGATTGGTT TAGCAATCCT TGCTCTTGCT	240
GGTTGTTGAA GTTTGTTTCAT TTAATAACAT CAAGCTTTTT CAATTTTCATT TTAGACAGTC	300
ATTTAAATTT TCCGTATTAG TCTTGCAGCA AGAGATTAAT AGAATTAGTC ATTATTTTAT	360
TGATTGCCGA CTGAGGGACT AGAGTATGTT TTAATAACC CCTCTTTTAT TTATTAAAGG	420
TTAGGTTTGT TATGAGAATT GTTGATAAGA TTAAGATATT ACCTACTCCT TATGAGGGAC	480
ACTATCATT ATATATACCA TCCAGTAAGA AACATGTATT AGTTGGGAAA CAGGAAAAAA	540
ATGGTTAGAG CAACTAATAG GTCAAGAATT TACCATATCG GACTTATTAG TGTTAGTAGG	600
GAAGAAATAT TTTTAAATA TCTTGGGACT TTAATATAAC ATTATCTGAA AAATTAAACT	660
ATAAAGATT TAATAAGAA TTTGAAAAA TCCTATCTTG TTGTCATTAT ATTTGCAACG	720
ATACATGAAA TTAGTCATGC AATAATTGCT AATAA	755

(2) INFORMATION FOR SEQ ID NO: 230:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1483 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 230:

CCAGAAAAC CGTAGTGGAG CTCGTGGAAC AGTGAATTG ATTTTCCAAA AAGAATACAA	60
TAAATTTTCA AGTATCTCAA AGAGGGAGGC ATAAGATGTC AGATGCATTT ACAGATGTAG	120
CCAAGATGAA AAAAATCAAA GAAGAAATCA AGGCACATGA GGGACAAGTC GTAGAAATGA	180
CTTTGGAGAA TGGTCGTAAG CGCCAAAAA ATAGATTGGG TAAGCTAATT GAAGTTTATC	240
CATCTCTATT TATTGTGGAG TTTGGGGATG TGAAGGAGA TAAACAAGTT AATGTTTACG	300
TTGAATCCTT TACTTACTCA GATATTCTTA CAGAAAAGAA TTTGATTCAT TATCTTGACT	360
AAAGTGAGAA ATTTTCTCAC TTTTCTTTT TTCTCCGAAT AATTAGGTG AAGGCAATCA	420
TCGCTTTATA TTATTTTCA AGGAGGAAGA ATGAAAATTT TACCGTTTAT AGCAAGAGGA	480
ACAAGTTATT ACTTGAAGAT GTCAGTTAAA AAGCTTGTTT CTTTTTTAGT AGTAGGATTG	540
ATGCTAGCAG CTGGTGATAG TGTCTATGCC TATTCAGAG GAAATGGATC GATTGCCGCT	600
GGGATGATT ATCCTGCTTA TTATAAAAT GGGAGCCAGG AGATTGATCA GTGGCGCATG	660
TATCTCGTC AGTGACTTC TTTGTAGCC TTTGTTTGA GTAATGTCAA TGTTTTTGAA	720
ATTCCGGCAG CTTATGGAAA TGCGAATGAA TGGGACATC GTGCTCGTCG GGAAGGTTAT	780
CGTGTAGATA ATACACCGAC GATTGGTTCC ATTACTTGGT CTACTGCAGG AACTTATGGT	840

1249

CATGTTGCCT GGGTGTCAAA TGTAATGGGA GATCAGATTG AGATTGAGGA ATATAACTAT	900
GGTTATACAG AATCCTATAA TAAACGAGTT ATAAAAGCAA ACACGATGAC AGGATTTATT	960
CATTTTAAAG ATTTGGATGG TGGCAGTGT GGAATAGTC AATCCTCAAC TTCAACAGGC	1020
GGAACTCATT ATTTTAAGAC CAAGTCTGCT ATTAAAAGT AACCTCTAGC TAGCGGAACT	1080
GTGATTGATT ACTATTATCC TGGGAGAAG GTTCATTATG ATCAGATACT TGAAAAAGAC	1140
GGCTATAAGT GGTGAGTTA TACTGCCTAT AATGGAAGCT ATCGTTATGT TCAATTGGAG	1200
GCTGTGAATA AAAATCCTCT AGGTAATCT GTTCTTTCTT CAACAGGTGG AACTCATTAT	1260
TTTAAGACCA AGTCTGCTAT CAAACTGAA CCCCTAGTTA GTGCAACTGT GATTGATTAC	1320
TATTATCCTG GAGAGAAGGT TCATTATGAT CAAATCTCG AAAAAGACGG CTACAAGTGG	1380
TTGAGTTATA CGGCTTATA CGGAAGTCGT CGCTATATAC AGCTAGAGGG AGTGACTTCT	1440
TCACAAAATT ATCAGAAATCA ATCAGGAAAC ATCTCTAGCT ATG	1483

(2) INFORMATION FOR SEQ ID NO: 231:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1027 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 231:

CCCCGAAAAC AAGTTAAAGT TGAAGTGGT CAAGCAGTTT ACGTTGAAAA ATTGAACGTT	60
GAAGCTGGTC AAGAAGTTAC TTTTAACGAA TTGTTCTTGT TGGTGGTGAA AACACTGTTG	120
TCGGAAGTCC ACTTGTGCT GGAGCTACTG TAGTTGGAAC TGTTGAAAA CAAGGAAAAC	180
AAAAGAAAGT GGTACTTAC AAGTACAAAC CTAAAAAGG TAGCCACCGT AAACAAGGTC	240
ACCGTCAACC ATATACAAAA GTTGTCATCA ACGCAATCAA CGCTTAATTT TAAGGAGAAC	300
ACATGATACA GGCAGTCTTT GAGAGAGCCG AAGATGGCGA GCTGAGGAGT GCGGAAATTA	360
CTGGACACGC CGAGAGTGGC GAATACGGCT TAGATGTCGT GTGTGCATCG GTTCTACGC	420
TTGCCATTAA CTTTATCAAT TCTATTGAGA AATTGTCAGG CTATGAACCA ATCCTAGAAT	480
TAAACGAAGA TGAAGGTGGC TATCTGATGG TTGAAATACC AAAAGATCTT CCTTCACACC	540
AGAGAGAAAT GACCCAGTTA TTCTTTGAAT CATTTTCTT AGGTATGGCA AACTTATCGG	600
AGAACTATTC TGAGTTCGTC CAAACCAGAG TTATCACAGA AACTAACAC GGAGGAAAAC	660
ATTATGTTAA AAATGACTCT TAACAACTTG CAACTTTTCG CCCACAAAA AGGTGGAGGT	720

1250

TCTACATCAA ACGGACGTGA TTCACAAGCA AAACGTCTTG GAGCTAAAGC AGCTGACGGA	780
CAAACGTGTA CAGGTGGATC AATCCTTTAC CGTCAACGTG GTACACACAT CTATCCAGGT	840
GTAAACGTTG GTCGTGGTGG AGATGATACT TTGTTCCGTA AAGTTGAAGG CGTAGTACGC	900
TTTGAACGTA AAGGACGCGA TAAAAACAA GTGTCTGTTT ACCCAATCGC TAAATAAAAA	960
GGTCCATTGA ACCTTTTATC CCGAACCTTG AAATGTAGAG GTGAGGAAGC TAGAAACAGC	1020
TTAAAAAT	1027

(2) INFORMATION FOR SEQ ID NO: 232:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1990 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 232:

CGGTTCAAAT GGTGCAGGTA AATCTACGTT AATTAATTCT ATTGTAGGTT TTCAAGAGAT	60
TTATTTAGGA GAAATAGAGT ATTGTGATAA AGATTGATA GTTAGTTCTC AACCTTTTGC	120
TCATTTAGGC TTTACTCCTC AAACCACAGT AATTGATTTT TATACTACTG TGAAGGACAA	180
TGTAATATTG GGGCTGAACC TTGCTGGAAG GTTTGGGAAA AATGCTGAGA AGTTGTGTCA	240
AATAGCCTTA GAAATGTTG GGTAGCTGA TAAAAAAAT AATTGGTAG AAACATTGTC	300
AGGTGGACAA CTGCAACGCG TCCAGATTGC TAGAGCAATA GTCATAATC CAGATTTTTA	360
TATTTTAGAT GAACCTACCG TTGGTTTGA TACTGAATCT GCCGAAAAAT TTTTAATGTA	420
TTTAAAAGAT AAGAGTTTGG AAGGAAAAAC TATTATCATA TCTTCACATG ACATAAATCT	480
ACTCGAAAAG TTTTGTAATA AAATACTTTT TTTACAAAAT GGCTCCATAT CATTTTTTGG	540
TGATATGCGT GACTTTGTAG ATAATTCAAC TATCAAATTA AATTTTCAA TGCAGAATAG	600
AATTTCTAGA TATCAAATG AATTTTGA AATTTTGA TTTAAAGTTC ACATCGAAGA	660
TAATGATAGT TTTACAATAG AAGTCCCTAT AGAAGAAAAG ATCTTAGATG TTATCAATGA	720
GGTAGGAAAA GCATGTGAAA TAAAAACTT TTCAACAAGT AAATTAACCT TACAAGAAAG	780
TTATTGCAA AGAATAGGAG GAGAAAAATG AAGGCTGATC AATTAAGGCA CAAATCGGAC	840
TTAGGTTTAA GAGGTCTAGC GATTATTGCT AAAAATGAGA TTATTGCTTT TTTTAGAAGT	900
AAAGGTTTAA TTATTCTCA GTTCTACAA CCAATCTTAT ATGTTGTTTT TATAATAATA	960
GGATTAAATT CTTGATAAAA GAACATTAG TTTAATGATA TAAAAACCTC TTATGCAGAA	1020
TATACAATCA TTGGTGTAT AGCTTTATTG ATAATCGGGC AGATGACTCA AGTTATTAT	1080

1251

AGGGTGACAA TAGATAAAAA ATATGGGCTA CTGCTCTTA AGTTATGCAG TGGAGTTCGT	1140
CCTTTATATT ATATTTTAGG GATGAGTATC TATTCTATAT TAGGGTTGAT AGTTCAAGAA	1200
ATTATTATAT ATATAATTAC GTTAGCGTTT GAGATAAATA TCGCAATGGA TAGATTTTTT	1260
TATACAGTTT TGTATCTAT TGTGTTTTA TTATTTGGG ACTCCCTTGC AATTTTACTT	1320
ACAATGTTTA TCAATGATTA CAGAAGACGT GATATTGTAA TACGTTTTGT ACTAACACCG	1380
CTTGGTTTTA CAGCTCCTGT TTTCTACTTA ATAGATTCTG CTCCTAGTAT TGTGAGATGG	1440
ATTGTCAGT TAAATCCCTT AACTTATCAA TTAACATTTT TGAGAACTT TTATTTTAAA	1500
AATCAACAA CTTTGAATT AGTTTTCTTA TTGTTAACAT CATTACTTGT CCTTATATCT	1560
GTATCTTTTA TTATACCAA GATAAATTG ATACTGATAG AAAGATAAAA GTTGGGTCAT	1620
CCAACTTTTT TGTGTCTCC CGAAAACCAC TAGCTATGCT AGTGGTTCCA TAGAGCTTTT	1680
AGCGTGTAA CAAAAGAAC CTCCTAAAAT GATAAGATAG AAGTGGTTTC TCCGCCACTA	1740
CAACATATCA TACAGGAGGT ACCTCATGAG AGAGGATAAT CAAAGTTTAT CACATACCAC	1800
ATGGAATTGT AAATATCATA TTGTTTTGC ACCCAAATAT CGTCGTCAA TCATTTATGG	1860
CAGATACAAA GCTAGTATCG GAAGAATCAT ACGTGACTTA TGTGAGCGTA AGGGTGTAAT	1920
AATCCATGAA CGCAATGCTT GTTCAGACCA TATTACATG CTTATCAGTA TTCCTCCGAA	1980
ACTTAGTGTT	1990

(2) INFORMATION FOR SEQ ID NO: 233:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 233:

GAACATATATT GCATATATTT CTAGCAATGA TCATGGCGAA TCTTGGTCTG CACCAACTTT	60
ATTACCTCCT ATAATGGGAC TTAATCGGAA TCGCCATAT TTAGGTCCTG GACGTGGAAT	120
CATTGAAAGC TCAACTGGAC GTATTCTTAT TCCGTCTTAC ACTGGTAAAG AGTCTGCCTT	180
CATTATAGT GACGATAATG GAGCATCTTG GAAAGTTAAA GTAGTCCAC TTCCTTCTAG	240
TTGGTCAGCA GAAGCACAAT TTGTAGAATT GAGTCCAGGA GTAATTCAAG CATATATGCG	300
TACAAATAAT GGTAAAATTG CATATTTAAC AAGTAAAGAC GCAGGTACTA CTTGGAGTGC	360
ACCGGAATAT TTGAAATTG TTTCAAATCC AAGTTATGGA ACACAATTAT CAATCATCAA	420

1252

TTATAGCCAA TTGATTGATG GTAAAAAGGC TGTCAATTTTA AGTACTCCAA ACTCCACAAA	480
TGGTCGTAAA CACGGACAAA TTTGGATTGG TCTAATTAAT GATGATAATA CAATTGATTG	540
GCGTTATCAT CACGACGTTG ATTATAGTAA CTATGGATAC TCATATTCAA CATTGACAGA	600
GTTACCAAAT CATGAAATTG GATTGATGTT TGAAAAATT TATTCAATGGT CTCGTAATGA	660
ACTTCATATG AAAAATGTTG TACCATATAT AACATTTAAG ATTGAAGATC TGAAAAAGAA	720
TTAAAGCTGA AATTTGAAAA TATATAAAAA GAGGATAAAA ATTATGGTAA ATTACGGTAT	780
TGTTGGAGCT GGATATTTTG GAGCTGATTT AGCTCGCTCA ATGAACAAAA TTGAAGATGC	840
AAAAGTGGTT GCGGTATTTG ACCCAAATCA TGGAGAAGAA GTTGCTCAAG AGTTGGGATC	900
AGATGTTTGT GCAAGTTTAG ATGAACTTGT AGCACGTGAA GATATTGATT GTGTGATCGT	960
AGCTTCACCT AGCTACCTTC ACCGTGAACC AGTTGTGAAA GCTGCTCAAC ATGGCAAACA	1020
CGTATTTTGT GAAAAGCCAA TTGCATTGTC TTATGAAGAT TGTAAGCCAA TGGTTGACGC	1080
ATGTAAAGAA AATAATGTCA TCTTTATGGC TGGTCACATC ATGAACTTCT TTAACGGTGT	1140
ACACCATGCT AAAGAATTGA TTAATCAAGG TAAATCGGT AAAGTTCTTT ATTGCCATGC	1200
TGCTCGTACA GGTGGGAAG AACACAACC AACTGTATCA TGGAAGAAAC TTCGTTCTCA	1260
ATCTGGAGGA CATTGTGACC ACCATATTCA TGAATTAGAT TGCATTCACT TTATCATGGG	1320
AGGACTTCCT GAAAAGCGA CAATGGTAGG AGGCAATGTA TATCATAAAG GTGAAAACCTT	1380
TGGTGATGAA GATGATATGC TCATTGTAAA CTTAGAATAC TCTGATGATC GTTATGCTGT	1440
TTTGGAATAT GGTAATGCTT TCCGTTGGGG TGAACACTAC GTCTTGATTC AAGGAACTGA	1500
AGGAGCTATC AAACCTGACT TGTTCATAC TGGCGGTACT CTTGCTGTTA AAGGTGAAGG	1560
AGAATCACAC TTCTTAGTTC ATGAACTCA AGAGGAAGAT GATGATCGTA CAGCTATCTA	1620
TACCGGTGCT GGTATGGATG GAGCAATTGC GTACGGTAAA CCAGGAGTAC GTTGCCCAT	1680
ATGTTTGCAA ACATGTATTG ATAAAGAAAT GGAATATCTA CATGACATCA TTAAAGGTGG	1740
AGAAATTACA GAAGAATTG AAAAATTCTT CAATGGTGTA GCTGCTTTAG AATCAATCGC	1800
TACCGCTGAT GCATGTACTT TATCAGTTAA AGAAGATCGA AAAGTAAGTC TTTCAGAAAT	1860
CACAAATGCT TAACTTTGTG AAAACAGAAT AGTAAATTCT TGTCATTATA TAATTTCTAA	1920
AGTTCTGTGA TACAACTCAT TGAATAAAGA AATAGAGATG GGAATGGAT AATGCCCCAGT	1980
CCCATTTTTT ATCAAAAAGT AATGAGATCA AAAATGTGGG AGTGTGAAA TGAAGATTAT	2040
AGGTATCGAT ATTGGCGGAA CAACAATTAA GGCAGATTTA TACGATGAGT TTGGAACGAG	2100
TTTGAATCAT TTCAAAGAGA TAGAAACAAT TATTGACTAT GATTGGGAA CGAATCAGAT	2160
ATTAAATCAG GTCTGTGATT TAATTGGTGA GTATACTTTA AATCATTCAA TTGATGGTGT	2220

1253

TGGGATTTC	ACTGCTGGAG	TTGTTAATGC	TAATACTGGA	GAAATCATCT	ATGCAGGCTA	2280
TACAATACCA	GGGTATATCG	GAGTAACTT	TACTGCCGAA	ATAGAAAAAC	GTTCGGGT	2340
GTATACTTTT	GTGAAAAATG	ATGTTAATTG	TGCTGCATT	GGTGAATTGT	GGAAGGGACA	2400
AGCCAAAGAT	AAGAAAAATG	TAGTAATGGT	TACTATTGGA	ACAGGTATAG	GAGGCAGTAT	2460
TATTGTCAAC	GGACAAATTG	TTAACGGATT	TAATACTACT	GCTGGTGAAG	TAGGTTATAT	2520
TCCTGTAGGT	AATTCGGATT	GGCAAAGTAA	AGCCTCAACA	ACCGCATTGA	TTCATTTATA	2580
TCAAAAAAG	AGCTTGAAAA	CTAATCAAAC	TGGACGTA	TTCTTCACTG	ATTTAAGATC	2640
TGGAGATAAA	GTTGCTGAAG	AACTTTTGA	AATTTTGTGA	GAAAATCTAA	CAAAAGGTTT	2700
ATTAACGATT	TCTTATCTAC	TTAATCCAGA	AATTCTCATA	TTAGGAGGTG	GGATTCTGGA	2760
TAGTAAGGAT	ATTTTGTAC	CTGAAATCA	AAGTTCTTTA	GCTAAAAATG	CAATGGATAA	2820
TAGTTTTTTA	CCTAAAAATC	TTGTGGCAGC	TACATTAGGA	AATGAAGCTG	GTCTATAGG	2880
AGCTGTAAAA	AATTTCTTAG	ATAGAATTC	TAATAAATAG	TATGTAAGAT	AAGGAGGTGT	2940
CACAATGACT	AACCTCTGAT	TTTCGACAAT	GCAAGATATT	GAGAATGTTG	CAACCGATAT	3000
TATAAAATCA	TATGATAATG	AGATTTATAC	TTATAAAGCT	GTTCCTCAAG	AAGAATTGGA	3060
AAACTAGAA	AAAAGTTATG	ATGAAAAAAG	TCACGAAGAA	TTAGTTTCAA	TAGAAAGCAA	3120
TTTAGAAATG	AAACAACAGA	ACCTTATGTA	TGAGGTTAAT	AAAACAATCA	AGGAAATGA	3180
TGCAATATT	CAGTATATTT	CATCAAGTAG	GAGAGGAGAA	TTGTAGAGAA	AAATTATTGG	3240
TAGGGTGGTA	GAAAAATATG	GCCATTAGTC	AGATGAAAAG	AATCTCTCTA	CTATTTTCTA	3300
AAAGTAGTCT	TGATGATGTT	TTAAAACTA	TTCAAGAAGT	AGAGTCAGTG	CAGTTCCGTG	3360
ATTTAAAGGT	TCAGGATAAC	TGGTCAGAAG	CTCTAGAAAA	AGATGAAGTT	GTATTTCCAA	3420
CTATTCAAAT	TTTTCATACT	TCTAATTCCA	ATCATGGGGT	TATTGAGGGA	AATGATGCCT	3480
TGACTTATTT	GATGAATCAA	CAACAACATT	TAGAAGCAAC	TGTAGAGAAA	TTACAAGAAT	3540
ACCTACCGAA	AGAAAACACG	TTTAAATTAT	TGCAGCAACC	TCCGATAACT	ACCTCTTATG	3600
AAGAATTAGA	GAAATTGGT	AAAGCTAATG	TTGCTGAGGG	TGTTCTTAAA	AAAGTGAATC	3660
ATCAAATTAA	CAGAGTTCAT	GAATTAGAAA	GACACATTCA	AAGTAATAAT	GAGGAAATAG	3720
AGCGATTAA	AAAGTGGGAA	AAATTAGAAA	TTGTTCTGTC	GAATTTAGAA	CAATTTTCTT	3780
TCTGTAAAGG	AAAAGTCGGA	ACAATTCCAA	GGACTGAAGA	TAATCGCTTA	TACAATAGTC	3840
TTTTAGAAAA	CAATATTGAA	GTCAAGAAA	TATTTTCTAA	TGATAGAGAG	TACGGTGTG	3900
TTGTTTCTA	TCAGTCTAGT	TACTCTATAG	ATTTTGATGA	ATACTTATTT	GAACCATTTG	3960

1254

ATTATTTCTAG AAAGGAATTA CCGAAGCAGC GAGTAGTAGA TTTAGATCAA GAAAACATGC	4020
AGTTAATAAC TGAAAAAGAG AATATTATCG CATCGTTGCA AGATTCAAAG AAATATTTGA	4080
TAGATTTACA ATGGCAAATA GACTATATTT TATCTATCTA TGCTCGTCAA ATCTCTAAGA	4140
ATAACTTTTT GTGCACTCCG CATCTAGTTG CATTAGAAGG ATGGATAGAA GAAACTCGTA	4200
TTTTATATTT TATAAAAGTT ATGGATGAGC ATTTTGGACA TTCTATTTAT ATTTATGAAT	4260
CGGAAACATT GACGGATAAT CAAGATGAAA TACCTATCAA ATTAACGAAT CATTCTTTAA	4320
TTGAACCATT TGAATTATTG ACAGAAATGT ATGCTCTGCC CAAATATTAT GAGAAAGATC	4380
CTACACCTGT ATTAGCACCA TTTTACTTTA CATTTTTTTG AATGATGGTT GCTGATTTAG	4440
GCTATGGTTT ACTATTGTTT TTAGGAACAA TGTTAGCATT AAAAATTTTT CATCTACCTT	4500
CAGCAACTAA GAGATTTTTA AAATCTTTA ATATATTAGG GGTAGCCCTT GCAATTTGGG	4560
GTGGAATCTA TGGCTCATTT TTTGGATATG AGTTGCCATT TCATCTGATA TCTACAACCT	4620
CTGATGTCAT GACTATATTA GTAGTGTCAG TTGTGTTTGG GTTTATTACA GTATTTGCAG	4680
GTTTGTTAGC TTCAGGACTA CAAAAGTAA GAATGAATAA ATATGCAGAA GCATATAATT	4740
CAGGATTTGC GTGGTGTGTT ATTCTG	4766

(2) INFORMATION FOR SEQ ID NO: 234:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2484 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 234:

CCTTTTAGAA AAAATTAAAG AATACGACAC CATTATCATT CATCGTCATA TGAAACCAGA	60
CCCTGATGCC TTGGGAAGTC AGGTGGGATT GAAAGCCTTG CTGGAACATC ATTTCCCAGA	120
AAAAACCATC AAAGCCGTCG GTTTTGATGA ACCAACTCTT ACTTGGATGG CTGAGATGGA	180
TCTTGTGAA GATAGAGCCT ACCAAGGCGC ACTTGTCATC GTCTGTGATA CAGCTAATAC	240
TGCTCGTATC GATGATAAGC GCTATAGTCA AGGTGATTTT CTCATTAAGA TTGACCACCA	300
TCCAAATGAT GATGTATACG GTGACCTGTC TTGGGTCGAT ACTAGTTCAA GTAGCGCTAG	360
aGaTGATTAC CCTATTTGCC CAAACAACCC AACTAGCCTT GGCAGATCGC GATGCTGAGT	420
TGCTCTTTGC AGGAATTGTC GGTGATACAG GTCGCTTCCT CTACCCTTCT ACCACTGCAC	480
GGACTCTTCG CCTGGCTGCT TATTTGAGAG AACATAACTT TGACTTTGCG GCTCTCACTC	540
GCAAAATGGA CACTATGAGC TACAAAATTG CTAAACTGCA AGGCTACATC TACGACCATC	600

1255

TGGAAGTGGA TGAAAATGGT GCTGCTCGCG TTATCCTGAG TCAGAAAATC. TTGAAACAAT	660
ACAATATAAC CGATGCTGAA ACTGCGGCCA TTGTAGGTGC ACCTGGACGC ATTGACAGAG	720
TGAGTCTCTG GGAATTTTT GTCGAACAGG CTGATGGCCA CTACCGAGTT CGCTTACGCA	780
GTAAAGTCCA TCCTATCAAT GAAATTGCCA AGGAGCATGA TGGTGGAGGC CACCCTCTAG	840
CAAGTGGTGC TAATTCCTAT AGCCTAGAAG AAAACGAAAT CATCTACCAA AAGTTAGAAG	900
ACTTGCTTAA AAACGTATAA AATACTTGCC AAACTTTCA GAATCTGATA GACTAGTATA	960
GTAACAATCT ATGGCTCGCA AAGAGACCAT GGCAGAAAG AAATATTGCA AAATGAAAA	1020
AGATATCCAT CCAGAATATC GCCCAGTTGT CTTCATGGAC ACAACTACTG GTTACCArTT	1080
CCTTAGCGGT TCAACAAAAC GCTCTAACGA AACAGTTGAG TTCGAAGGCG AAACCTACCC	1140
ATTGATCCGT GTGGAAATTT CATCAGACTC ACACCCATT CACTCTGGAC GTCAAAAGTT	1200
CACTCAAGCA GATGGACGCG TGGATCGTTT CAACAAAAA TACGGTCTCA AATAATGATA	1260
AGAGAACAGT TTTGGCTGTT CTTTTTGT TCTTGAAATC AACTGCTGTT TTCATGTTCC	1320
AGACTCATCT GTAGGTTCTGA TTCCATGCT ACTAGGCAGG AAGGAAATAG CTGTTTCAAC	1380
ACGTCCATAA TGAGCTATAC TATTGTACG AACCAACTT TCATTGATGG TCCAAGTGGA	1440
ATTCATTTTC TTAAGAGCTT CTCGGACTTT TTCCAAATCT TTGGAGGCAA TGGCCTGCTC	1500
TAAGGTTTCA AAACGAGGAC TTATACTCAT CTGCTTTCAA AAAGCATTCT AGTCCATCTC	1560
CGATTACCGA TGGACTTTAT CACCTCCTTC TCCAGTCCTT GTATGACATC TTGAAGTTGA	1620
TTTCATGACAT CTTCCAAAGT TCgAAAGGCT TTATTCTTAA ATCCACGTTT ACGAATCTCT	1680
TTCCACACTT GTTCAATGGG TTCATCTCTG GTGTGTATGG AGGAATAAAG GTAAAATCAA	1740
TATTAGTCGG AATATTTAAG GTACTTGATT TATGCCATAT AGCATTGTCC ATAACGAGTA	1800
AAAGGATAAG CTGTGAAAG CTCTTCTAAA AAGGCGTTCA TCCCACTCC TTTTATAAA	1860
CCTGAAATAA GGCATCAATT GTAACAAAT CTCCTGCCTC TGTAGCCTTC AAATGACGGG	1920
CAAGAAAGGC TTTCTCTCC TCAACTGTCA TATATGCATG GTTACGACCA CCACGTGTTT	1980
CTTGAAGGAG AGAGTCGAGT CCGAACTCCT CATATTTTTT TACGTTTCGC CAAATCGTTG	2040
TTTGATTACA GTCTAAAAGC TCTATAATCT CTTTATAAGA TTTGCCCATC AGACGAAATA	2100
TAGTAGATTG AAACGTAGAAT AGTACACCTC TACTTCTAAA ACATTGTTAG AAATCGATTT	2160
GTCCTGTTCT TGTTCATTT TACTATAGAA CGATTGAAG GCGTTTATAA TATTTAGCTG	2220
TACGAGAGTC TTTTAAAAGT GTTTTGATGG TTTGGATTTC TTCTTTAGTT GATTTTCATAT	2280
TACTATTATA TAATGCTTTT TGATTTTAGT CTGGTATAAA TATTGCTTTC CTCCAAAATG	2340

1256

GTCATAGTTT TACTGGCAAA TCTAACATAT CACGGATAAA TTAACAAGTG ATTTCTGAAT	2400
TGCTAAACAT TTTCTTTTCT TATAGCATAC TTAAAGATTT TGTCTTTGAG AAAGATATTT	2460
CCAAGAAAAA CGTTCGTTTT TTGG	2484

(2) INFORMATION FOR SEQ ID NO: 235:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 235:

CTAGATATAG CTATAATTTT ATTTATAACA AGAGGATAGA AATGACCGAA TTAGAAAGAA	60
AAAATCGAAA AATTAGCTAA GAAATATTCT GATAACTTAA ACATCAAAGT TCAAGAGAGA	120
GTTCTGAAA TGGCAAAATGA TAATAAGAGC CATTATTGTA TATACAGAGT TTTAGGTATT	180
TCATTTGAAG AAGGAGAAAA TATCGATTG TATCAAAATA AAGGTCGTTT TTTATACAAA	240
TATGCTGGTT CATTTTTAGA AGAAGCTGCA GTACTATGCT TTAACGAAAA ATTTGGTACA	300
GAAAATACTT AAAAAGTTAA CATTCCTAAT TCTGAAAGTA CAAAACCTAA GACTTTTGAA	360
ATTGATTGTT TAGTCGGAGA AAAACACGCA TACGAAATAA AATGGTGGGA TGCAACTACA	420
GATGGAGACC ATATAACTAA AGAACACACT AGAATAAAAG TTATTCATAA CAAAGGATAT	480
ATACCAATTC GGTTAATGTT CTACTATCCA AATAGAATC AAGCTATAAA AATTCAGCAA	540
ACTTTAGAAA CATGTATATA CGGTATTGGA GGGAAATATT ATTATGGAGA TTCTGCCTGG	600
GAACATTTAA GAGCAGTGAC CGGTATTGAT TTAAGTAGTA TTCTAACAGA TATTGCAAAT	660
AAAAAACAG GGGTAAATC AAAATGACAG TATTAAAGG AGATAACTTA GAAATATTAA	720
AAACTATTGA ATCCTCAAGT ATTGATTTAA TCTATATGGA CCCTCCTTTC TTTACACAGA	780
AAACCCAAAA ATTATCTAAT AACAAAATA TTATGTATTC ATTGGAAGAT ACGTGGACT	840
CGATTGAGGA TTACAAAGAA TTTTGTCTG TAAGATTAGA AGAATGCAAA AGAGTGCTAA	900
AAAATAGTGG CAGTATTTTC GTTCATTGTG ATAAATGTC AAATCATCAT ATTAGATTAA	960
TTTAGATAA TATCTTTGGA GTAGATATGT TTCAAAGCGA AATTATATGG AACTATAAAC	1020
GGTGGTCTAA TTCAAAAAAG GGATTATTGA ACAATCATCA AAACATTTAC TTTTATTCAA	1080
AGTCAAAGA TTTTAAATTT AATACAATTT TTACAGAGTA TTCTTCTACT ACAAATATCG	1140
ACCAAACTACT AGTGGAACGA AAACGAGATG GAAACTCTAA AACTATATAT AAGGTTGATA	1200
ATAATGGTAA CTATATTCTA GCAAAAGAGA AAAATGGAGT TCCCCTTTCA GATGTTTGGA	1260

1257

ATATACCATT TCTTAATCCA AAAGCTAAAG AAAGAGTAGG TTATCCTACA CAAAAACCTA	1320
TTCTGTTATT AGAACAAATT ATAAAGATTG CTAAGTATAA AAATGATATA GTTTTAGACC	1380
CGTTCTGTGG AAGTGGAAGT ACTTTAGTAG CCTCCAAGAT TTTGAATAGA AATTATATGG	1440
GGATTGATTT ATCTGAGGAA GCTATCAATA TAACTCAGCA ACGTCTGGAA AATGTTATAA	1500
AAACAAGTTC AAATTTATTG AATAAAGGAA TCGAAGCATA TAGAACCAAA ACTGAGGAAG	1560
AGGAAAACAT TCTTAAATTA TTACAGGCAA AAATGTTC AAGAAATAAA GGAATTGATG	1620
GTTTTATACC TAAACATTTT CAAAAAAAC CGATACCTAT AAAAATTC AAATAAATG	1680
AATGCTGAA TGAGAGTATC TCTTTATTAC AGAATGCTAT AAATCCAAA AAATTTGATT	1740
TTGGAGTAGT TATAAAACT CATTCG	1766

(2) INFORMATION FOR SEQ ID NO: 236:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 748 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 236:

CCGAAAATCA AATTCAAACC ACGTCAACGT CGCCTTGCCG TACTCAAGTA CAGCCTGCGG	60
CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATTA AACTAAATTA AATAATATTA	120
GCGCGAGAGAA TTTCTAATTC TTCCTTGGTC AAGCGACGCC ATTCCTCTCG TTCTAGGTTT	180
TCATCTAATA CTAAGTTCC CATAGTCAAT CGTTGCAAGT CCACCACTTC CTGCCCACAG	240
TAGCCACCA TACGCTTGT CTGATGAAAC TTCCCTTCTG CAATGGTCAC ACGGATTTGG	300
CTTTGATTCT TTTCTGTATC TATGGATACA AGCTCCAGTA TAGCGGGTTG ACAGGTAAG	360
TCTTTGAGAG GAATACCTTC AGCAAAATGTC TCCACATCTT CTTGGGTCAT GATTCCCTTG	420
ACTTGTGCCA GATAAGTCTT GTCCACATGA CGTTGGGCG AAAGAAGAAC ATGAGCCAGC	480
TGACCATCAT TGGTCAAGAG CAAAAGACCA TGCCTGTCAA TATCCAAGCG TCCTACTGGG	540
AAAACCTCCT TACTCCGCGC CAAGTCATCC AACAAAGTCCA GAACGGTTCT GTGCTTGGGA	600
TCCTCAGTCG CTGAGATAAC TCCTTTGGGC TTGTTTCATCA TGTAAGTAGAC AAATCTTCA	660
TACTCCAACA CTTGCCCATC AAAGCGAATC TCATCTATTT TTTCATCAAT CTGCAATTTA	720
GCTGATTTTT CTTTTGACC ATTTACAG	748

(2) INFORMATION FOR SEQ ID NO: 237:

1258

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1449 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 237:

AAAAGATTAC ATTGCAACAA TTGAAAATTA TCCAAAGGAA GGCATTACCT TCCGTGATAT	60
TAGTCCTTTG ATGGCTGATG GAAATGCTTA TAGCTACGCT GTTCGTGAAA TCGTTCAGTA	120
TGCTACTGAC AAGAAAGTCG ACATGATCGT GGGACCTGAA GCTCGTGGAT TTATCGTGGG	180
TTGTCCAGTT GCCTTTGAGT TGGGAATTGG TTTTGC GCCT GTTCGTAAGC CAGGTAAATT	240
GCCACGCGAA GTTATTTCTG CTGACTATGA AAAAGAGTAC GGTGTCGATA CCTTGACTAT	300
GCACGCGGAT GCCATTAAGC CAGGTCAACG TGTTCCTATT GTAGATGACC TTTTGGCGAC	360
AGGTGGAAGT GTTAAGGCAA CTATCGAGAT GATTGAAAAA CTTGGTGGTG TTATGGCAGG	420
TTGTGCCTTC CTTGTTGAAT TGGATGAATT GAACGGCCGT GAAAAAATTG GTGACTACGA	480
CTACAAAGTT CTTATGCATT ATTAATGAAA ACAGTCCCTA GGGCTGTTTT CTCTACACTA	540
GGATATAAAA ATAGACTATA ACTAGTTAGA GAAAACTAT AATTGAAAAC TATATCTTCT	600
TGCAGTATAA TAAAAGGACT AAGTGTTTGA GATTGTCTT CAAACATATG CAATTATTCC	660
TGAAAGAGTA CAGTTAGGAG AGGGTTATGC CGATTCGAAT TGATAAAAAA TTGCCAGCTG	720
TTGAGATTTT ACGGACAGAG AATATCTTTG TCATGGATGA TCAACGTGCT GCCCACCAAG	780
ATATCCGTCC TTTGAAGATT TTAATTTTAA ATCTCATGCC ACAGAAAATG GTCACAGAGA	840
CCCAGTTGTT GCGCCACTTG GCTAATACAC CCCTACAACCT GGATATTGAT TTTCTCTATA	900
TGGAGAGCCA CCGTCTTAAA ACAACTCGTT CAGAGCACAT GGAGACCTTC TATAAACTT	960
TTCTGAAAT CAAGGATGAG TATTTTGATG GGATGATCAT CACGGGTGCT CCAGTTGAGC	1020
ATTTACCATT TGAGGAAGTG GACTATTGGG AGGAATTTAG ACAGATGCTT GAGTGGTCTA	1080
AGACTCATGT CTATTCGACC CTTTCATATCT GTTGGGGGGC TCAGGCTGGG CTTTATCTGC	1140
GCTATGGTGT AGAAAAATAC CAGATGGACA GTAAGCTATC AGGTATTTAT CCTCAGGACA	1200
CCCTAAAAGA GGGTCACCTT CTATTTAGAG GCTTTGATGA TAGCTATGTA TCCCCTCATT	1260
CACGGCACAC GGAGATTCTT AAGGAAGAGG TCTTAAACAA GACCAATCTC GAGATTTTAT	1320
CAGAAGGACC TCAGGTGGG GTTCTATTW TGGCCAGTCG TGATTTACGA GAAATTTATA	1380
GTTTTGGTCA TTTGGAGTAT GACCGTGATA CTTTGGCAAA AGAGTATTTT CGAGATCGTG	1440
ATGCAGGTT	1449

1259

(2) INFORMATION FOR SEQ ID NO: 238:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 904 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 238:

TACCCGCTTC TTCAAGAGT TGGAGCAGGG CTTGTTTGGC ATCTTTTGTC ATAGTTCTTC	60
CTTTTAACGG CGTTTTGAA GCACTTTATA GACAGCTAGT GCTAATGTAT AGTCTACCAT	120
ACTATGGATA ATTGTACCA ATCCAAC TAGTACAAATAGA ACATAAAACA TATTTTCTAC	180
ATTGTTACCA GAAGTTGCGT AAAAAACGAC ACAGGCCAAT ACTTCAGCAA GGGCATGAAC	240
AACAGCCAAA ACAAAGTTGA AAATCCAGGA AGATTTTGGT TTATCTAGGG TATCGGGGAA	300
TTTTTGTAGG TAAAGAGCTC CTAAAGCACC AAAAGATATA TGGGAAAAAG CCCGAAAAAC	360
GATAACCATG GGATAGCCAG CCATCAAAAA TCCAAAACTA GAGGCTAGGA TGACAAAAAC	420
TGCCATCAAG GCGGACAAGA ACATGGCTAT AAAAATAGCG ATGTGGCTCC CCAAAGTATA	480
GGAAGCAGGT GGAATGACAA TCTTGAAAGG CATAACAATT GGAATCAAAA TCGCAATAGC	540
CGTTAAAAGG GCTGTCAATG TCATAAATG TGTCTTTTTC CGTGTATTCA CAAGAATCTC	600
CTTTTAACT GCATATACAC TAGTATGGTA CAATAAACCA GACAATAAAG CAAGAATTTA	660
CTTGGGTTTA TAGATCATTT TTTAGTTAAA AGTTATAGTA GATTGAACT AGAATAGTCC	720
ACCTCTACTT CTAACACATT GTTAGAAATC GATTGGGCTG TCCTGATCGA TTTGTCCTGT	780
TCTTATTTTG TTTTACTATA GTAAAGATTT CATTAAAAAG AAAGTGTATA GAGCAAAATC	840
TCCACCTTCA GGTTTGGAAG GCGGAGATG TTTTATTATT TTTCCAGGGT TTGTAGTCGT	900
GGGA	904

(2) INFORMATION FOR SEQ ID NO: 239:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 946 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 239:

CACTCAAACA TGACTTATAT CAAGACGGAT GGACTTCAAG ACGATGCCAA TCGCTTGAAT	60
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1260

CGTAACATTC AGTTTGGTGT TCGTGAATTT GCAATGGGAA CAATCTTGAA CGGGATGGCC	120
CTTCATGGTG GACTTCGTGT ATACGGTGGA ACTTCTCTCG TCTTCTCTGA CTATGTGAAG	180
GCAGCTGTCC GCTTGTACAG CTTACAAGGA CTTCTGTGA CTTATGTCTT TACCCATGAT	240
TCAATCGCAG TTGGGGAAGA TGGTCCGACT CATGAACCAG TTGAGCATTT AGCAGGTCTT	300
CGTGTATATGC CAAATCTAAA TGTTTTCCGT CCAGCAGATG CGCGTGAAAC GCAAGCAGCT	360
TGGTACCTTG CAGTGACAAG TGAGAAAACA CCAACTGCCC TTGTCTTGAC ACGTCAAAAT	420
TTGACTGTTG AAGATGGAAC AGACTTCGAC AAGGTGCTA AAGGTGCTTA TGTGTATAT	480
GAAATGCAG CCGACTTTGA TACCATCTTG ATTGCGACAG GTTCAGAGGT TAATCTTGCT	540
GTCTCAGCTG CTAAGAATTT GGCTAGTCAA GCGGAAAAA TCCGCGTAGT CAGCATGCCA	600
TCTACAGATG TCTTTGATAA ACAAGATGCA GCTTACAAGG AAGAAATTCT TCCAAATGCA	660
GTCCGCCGTC GTGTGCAGT CGAAATGGGT GCAAGTCAAA ACTGGTACAA ATATGTTGGT	720
CTCGATGGTG CCGTCTAGG TATTGATACT TCGGAGCCTC TGCCCCAGCA CCAAAGTAT	780
TGGCAGAATA TGGCTTTACT GTAGAAAATC TTGTAAAAGT TGTCGAAAC TTGAAATAAT	840
CCTAAAAATC AGGGCGTAAG CTCTGGTTTT TCTTACCAGA AAAGTAAGGT ACAATCTTGT	900
AAAAGTAGCT GAAATTTGAT ATAGTAGTCC TATGTAAAAG ACAAAG	946

(2) INFORMATION FOR SEQ ID NO: 240:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2764 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 240:

CGGGGCTCCC TAGTTCTTAG GGAGCTATTT TTGTTTTTTC AAGAAGTTAT CTTCTTGTAT	60
TTTATACTCA ATGAAAATCA AAGAGCAAGC TAGGAACTA GCCGTAsstG CTCAAAACAC	120
TGTTTTGAGG TTGTAGATAA GACTGACAAA GTCAGGAACA CATATCTACG GCAAGGCGAC	180
GTTGACGCGG TTGAAGAGA TTTTCGAAGA GTATTAGTTG TGAATCTGGT GCAGTCGTCC	240
CAGATTATTC TTATTAGTAG GGTCTTGTTT TCTATATCCC CTCGTAGTTA ACAAGACCTT	300
GAGCATTTTA GAAAGAGGAA TCTATGTCTA CGAAATATAT TTTTGTAAC TGGTGGTGTG	360
TATCGTCCAT TGGGAAAGG ATTGTGGCAG CGAGTCTAGG CCGTCTCTTG AAAAATCGTG	420
GTCTCAAAGT AACCATTCAA AAGTTTGACC CTTATATCAA TATTGATCCG GGAACCATGA	480
GTCCTTACCA GCACGGGGAA GTTTTTGTGA CAGATGACGG AGCTGAGACA GATTGGACT	540

1261

TGGGTCACTA TGAACGTTTC ATCGATATCA ATCTCAACAA ATATTCCAAC GTGACAACTG	600
GGAAAATTTA CAGTGAAGTT CTTGCTAAAG AACGCCGTGG AGAATACCTT GGGGCAACTG	660
TTCAAGTCAT TCCTCATATC ACAGATGCTT TGAAAGAAAA AATCAAGCGT GCCGCTCTAA	720
CGACCGACTC TGATGTCATT ATCACAGAGG TTGGTGGAAC AGTAGGAGAT ATCGAGTCCT	780
TGCCATTCCCT AGAGGCTCTT CGTCAGATGA AGGCAGATGT GGGTGCGGAT AATGTCATGT	840
ATATCCATAC AACCTTGCTT CCTTACCTCA AGGCTGCTGG TGAAATGAAA ACCAAACCAA	900
CCCAACACTC TGTCAAAGAA TTGCGTGGCT TGGGAATCCA ACCAAATATG TTGGTTATTC	960
GTACAGAAGA GCCAGCTGGT CAAGGAATTA AAAATAAACT GGCCCAAGTTC TGTGATGTGG	1020
CACCAGAAGC CGTTATCGAA TCGTTGGATG TTGAACACCT TTACCAAATT CCACTGAACT	1080
TGCAGGCACA AGGGATGGAC CAAATTGTTT GTGATCATTT GAAATTAGAC GCACCAGCAG	1140
CGGATATGAC AGAATGGTCA GCCATGGTGG ACAAGGTCAT GAACCTCAAG AAACAAGTTA	1200
AGATTTCCCT TGTGGTAAG TATGTGGAGT TGCAAGATGC CTATATCTCA GTGGTCGAAG	1260
CCTTGAAACA CTCTGGCTAT GTCAATGATG CAGAAGTTAA AATCAATTGG GTCAATGCCA	1320
ATGATGTGAC AGCAGAGAAT GTAGCAGAAC TCTTGTCTGA TGCGGACGGG ATCATCGTAC	1380
CAGGTGGTTT TGGTCAACGT GGTACAGAAG GGAAATCCA AGCCATCCGC TATGCGCGTG	1440
AAAATGATGT TCCAATGTTG GGAGTCTGCT TGGGAATGCA GTTGACATGT ATCGAGTTTG	1500
CTCGTCACGT TTTAGTCTT GAAGGTGCCA ATTCTGCAGA GCTTGACCA GAAACAAAAT	1560
ACCTTATCAT TGATATCATG CGTGATCAGA TTGATATTGA GGATATGGGT GGAACCCTTC	1620
GTITGGGACT TTATCCGTCT AAGTTGAAAC GTGGCTCTAA GGCTGCTGCT GCTTATCACA	1680
ATCAAGAAGT GGTGCAACGC CGTCACCGTC ACCGTTATGA GTTTAATAAT GCCTTCCGTG	1740
AGCAGTTTGA GGCAGCAGGT TTTGTCTTTT CAGGAGTTTC TCCAGACAAT CGTTTGSTAG	1800
AAATCGTGA AATTCCTGAA AATAAATTCT TTGTAGCTTG TCAGTATCAC CCTGAACTGT	1860
CAAGCCGTCC AAACCGACCA GAAGAACTCT AACTGCCTT TGTTACTGCA GCAGTTGAGA	1920
ACAGCAATTA GCAAAATCAG AACCTTTGAG AAAAATCTCA GAGGTTTTTT GCATACGATG	1980
ATATTGCAGT ATATCTGAGG TAGGGGTCCT CTGTATGTAC CTGCTACCGT TGAAATCAAT	2040
AGCGACTCCC TCTTGCCCTG TGCTAGTGAA TGGATTTATC AGTATATTGA AATGAAATAA	2100
AATTTGAACA AATTAATTCT GAAAGCCAAA TCAATTCTCA GCAAAGTTTT AGGAACTGGA	2160
TTGTATAGTG AATTGAAATA AGATGTGAAC ATCTCTATCA GGAAAGTCAA ATTAATTTAT	2220
AGAAATATTT TAGCAGTCAA GATGTACTGT TATAGATTCA ATACATTATA CTTTTTTAAT	2280

1262

TTAATCCACT ATAGTAAAT GAAATAATA CAGGACAAAT CGATCAGGAC AGTCAAATCG	2340
ATTTCTAACA ATGTTT TAGA AATAGAGGTG TACTATTCTA GTTTC AATAT ACTATCCCAA	2400
ATCATTCATA CCTCTCTCAA CTAGATGTAA CTTACAAAAC CCCTGACCTC ATGAGCCACT	2460
TTCTTCCTCC TCATGAGGTC AGTTT TACTT TCTGCTGTT CAGTATCGTT TTTCCTCGCT	2520
AGATTTCCTC AAAAGGGCAG ACTCCTCCCT TGGTGCGTCA CACGATTTTT TCATCTCGAC	2580
TGTTCTTTAA TGCATCATTA ACGACGCTTT TCTTCTAGGT GGTTCAATAG GAACAGGAAG	2640
ATTCAGGTG ACTTTTCTAA TCCTAGAATA AAGTGCTGAA AACAAATTCGG AATAGGCATA	2700
GAGACTAGAC AATTGAGGA GCTGCTTGGC TCCTGTTCGA ACACATTTTC CCACCACGTG	2760
AAGA	2764

(2) INFORMATION FOR SEQ ID NO: 241:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1682 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 241:

CCGTTTTTTT CATTGTT CAG TACTACAACT TACGTTGTAG CCCCCTGCAC ATTGGTTCGT	60
CTTGTT CAGT TTTCAAAGGT CTTTGTC ACT TGCTTCTCTC AAGCGACAAC TATATTAGTA	120
TATCACA ACT GCTTTCGCTT GTCAACACTT TTTTGAAGAT TTTTAAGTTT TTTTAACTT	180
TTTTTCATCA AGTGGTCCGT ACGCAACATA CCATAGTCCG TACGGGATTC GAACCCGTGT	240
TACCGCCGTG AAAAGGCGGT GTCTTAACCC CTTGACCAAC GGACCTGAGT TGTTATTTTC	300
AACCTCTACT ATTATACAGT CTTTTCAAAC TTTGTCAACT ACTTTTTTAA ACTTTTTTTA	360
TTAATTTTAC AACAGCTTCA GTTCGAGCTG TATGTGGGAA CATATCGACC GACTGGATAT	420
AATGAAGATC ATAGACTTCT ACTAAGCGTA CCAAATCAG AGCCAAGGTC GAAACATTAC	480
AAGAAATATA AACCATTTT TCTGGTACAT AAGTAAGAAT AGTATCTAAT AACTTATCAT	540
CCAGACCTGT ACGTGGTGGG TCAACAATCA AAGCATCTGC TCGGTAGCCT TCCTGTGACC	600
AACGAGGAAT AATCTCTTCT GCCGTTCCAG CTTCATAATG AGTATTGTCA AATCCCATTC	660
TTTTAGCATT TCGCTTGGCA TCTTCAATAG CTTCTGGAAT AATATCCATA CCTCTGAGTG	720
TTTTTACTTT CTTTGCAAAG GCAAATCCAA TCGTTCCAAC TCCACAATAA GCGTCAATCA	780
AATGGTCTTC TTTATCAACA TCCAGCGCTT TTA CTGCTTC GCTATAGAGG ACTTCTGTTT	840
GCTCAGGATT TAGTTGATAA AAAGCTCGAG GGGATAGTGA AAATTCATAA TTGAGTACAC	900

1263

CTTCTTGAAT ACTCTCTGCG CCCAGATAA TCTCTGTCTT TTCACCATAT ATCTCACTGG 960
 TTTTAGCTGT ATTTGTATTA ACAGCTACTG TCACAACCTC TGGGAAATCT TTAACCAACT 1020
 CTTTACCAA TTGAGTTAAA TTAAGCTGGC GGTTTGTAAC AATAATAATC TGAACCTGTC 1080
 CGGTCTTTCT CGCGCGTCGG ACCATAATAG TACGGACACC TAGAACTTTT CTCTCATCCG 1140
 TGATTGGAAT CTGGTGATAA GTAAGTAATT CTGCTAAGCG ATTAGCAATC ACTTGGGTTT 1200
 CCTTATCTTG TACCAGGCAG TCTTTCAACT CTACTAAATA GTGAGAGTTT TGTGCATATA 1260
 AGCCCGCCTT GACCTGATTT TTAATTTTC GAGTCTGAAA TTGTAACCTA GCTCTGTAAT 1320
 ATTTTGGTTC CTGCATTCCA ATAGTTGGAC GAATTTTATA ATTTTCATAT CCTGCAGGAG 1380
 CAAATTTTTT CAGCGCTTGA TGAAGTAAGT CCGTCTTGAA CTCCAGCTGC TTATCATAAT 1440
 GCAGGTGCAT GATTTGGCAG CCTCCGCATT CATTATAAAT AGTACAAGAT GGCACAATTC 1500
 GAAATTTAGA CTTCTTGTTG ACCTTCAGTA ATTTTGCTTC AACAAAGTTG CGTCTAATAG 1560
 AAGTAATCTG ACAATAGATA TCTTCGCCTT TGAGAGCTCC TGGTACAAAG ACTAATGTTT 1620
 TTTGGTAAAA GCCGATTCCC TCACCGTTAA TTCCCATGCG CTTGATTTTT AATGGTATTT 1680
 TT 1682

(2) INFORMATION FOR SEQ ID NO: 242:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2524 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 242:

TTAACTTTGG TCAATCTTT AAAGTCATCC TCTGTAAGCA TGTCTAACCA TTGATGTTTC 60
 CCTTTATTGC TAAAATCACC AATTCGACT ACAGCTATAT CTAAATCTTT CCAACTATTT 120
 TTCAAAITTT CAAAATATCT TGATTGCAAA ATACCATCTG CTAACAATTT ATTTTCTTGC 180
 ACAATCGTTG CATTATATAA TGTACACTCT CCATGAAATT TTCTAGACAT TTCATAAATC 240
 AGTGTATTCA CATGGTATTT AGCGTGTATG TGAAGTAGAC CACCTGCTAG AGGATAGAAG 300
 TGAACATTTT GGACACTTTT ACTGTGAATT AAATCTACTA AATTACTTAA ACTTTTCCCC 360
 CAAGAAAAGC CAATTTTCAT ATTATCATCA ATTAGATTCC TAAGGACGCC TGCTGCAACT 420
 TGAGAAATTC TTTCAGATAA AATTGTTGGA GTATCATCAA ATTCAATTGG AATAATTTCT 480
 AAACCTTTCCA AACTGTATTT TTCTTTTACA TAATTTTCCA ACTTAAACAT ATTGGTATCA 540

1264

AAATTCTCTA TTTC AATTTT AACAAATTCCT ACATTCCTTG CTTCTGTAA CATTCTACTA	600
ATAGAGGTC TATAAATCC TAATTTTGCT GCTATTTGTG ACTGATTTAA GTTTTCAATA	660
TAATACAGAT AAGCAATTTT AGAAAGCAGT TTATTCCTAT CTTGATTCAT ACACTTAACC	720
TCTTACGAAA CTACCTTAAC CATTATCCCA GCATTTTCTA ATGTAGCTAT ATTTTGTTTA	780
GAAAGTTTTT CGTCTGTTAT TACTTCATAG ACTTGACTTA AAGCAAATCT TCTTACTGTA	840
CCTCTTTTAT CAAATTTACT TGAGTCAGTT AGGACAATGA CTTTATCCGA CACTGCTGAA	900
ATATATTGAA CTACCTCACT GCGCATTAAG TCTTTTCCGG TAAAGCCCAT CTCTTTATCG	960
TAACCATCTG TCCCAACAAA AGCTTGACAC ACATGAAAAG TCTGTATCAT TTCTTTTAAT	1020
AAAGGTCCTA CAGTCACCTG TGAATCTTTC TGAAACTCAC CACCAAGAAC AATAACACGA	1080
CATGAATCAT AAGCTCTCAC AAAATTTGCT ATAAAAACG AATTGTGTAC AATCGTAACA	1140
TTTCTTTTAT GCTTGCAAAT TTCCTCAGCA AGTAAAGCAC AGGTCGATCC AGATTCTATC	1200
ATTATTGTTT CATTATCTGA CACCAATTTT ACTGCTTCCT GAACAATTTT TCTCTTAGTT	1260
TCATAATTAA TTGACAAACG TACATTTAAG TCATCTCCAC TATTTAATAC AGCATATCCA	1320
TGCTCTCTGT GTAATAAACC TTTTGACTCT AATTATCTA AATCTTTTCT AATCGTTACT	1380
TTTGATACT TTAATTTTTC CGATAATGTA TTAACGTCGA TCTTTTCATA TTCTGATACT	1440
AATTTAATAA TTTGTTCCAA TCCTTTTATT TTACACCTCC GTTTTATCTT ACCAAAATAA	1500
AAAGCAAAAA ACAACAAAT AACCTTTTCT TCGTAATTGT TTTTCTTTTCG TTTTGTGAT	1560
AGGATAGACT TATGAAGAGG AGGAACTCTT ATGGAAATAT CTAAGGAAT TATTTTAAAT	1620
ATTCAACACT TTTCAATTCA TGACGGTCCG GGTATTCGTA CAACTGTTT TTTAAAAGGA	1680
TGCTCTCTGC GCTGTCCATG GTGTTCTAAT CCTGAATCTC AAAGAATGAA ACCTGAAAAA	1740
ATGAAAGATG CTCAACGAGA GAAATTCACC TTAGTCGGTG AAGAAAAGAC TGTAAGAAGAA	1800
ATTATTACAG AGGTATTAAA AGACAAAGAA TTTTACGAAG AATCCGGTGG AGGTTTAACT	1860
TTATCAGGAG GTGAAATATT TGCTCAGTTT GAATTTGCTA AAGCCATCTT AAAATCAGCT	1920
AAAGAACATC ACATACACAC TGCCATTGAA ACTACTGCCT TTGTTGATCA TGAAAAATTT	1980
ATTGATTTAA TTCAATATGT GGATTTTATC TACACAGACC TAAAACATTA TAATTCTATA	2040
AAACATAAAA AAGTGACTGG GGTTTTAAAT CAAATGATTA TAAAAACAT TCATTATGCT	2100
TTTTCACAAA ATAAAACTAT CGTTTAAAGA ATCCAGTTA TTCCTAATTT TAACAATAGT	2160
TTAGAGGATG CAGAAAAATT CGCTACTCTA TTAACTCAT TAAATATCGA CCAAGTTCAA	2220
CTACTCCCTT TTCATCAATT TGGTGAAAAC AAATATCGTT TATTAAATCG GAAATATGAA	2280
ATGGATGGAA TCAACGCACT TCATCCGAA GATCTTATTG ATTATCAAAA GGTATTTCTG	2340

1265

AACCACCATA TTAATTGTGA TTTCTAGTTT ATTTCCCTGA AATGCTCTAG CTATTTGCAG 2400
ATAACAAGCA TCTATAATAC ATACTTAACT TTTCAAAAGG TTTAGCTAAA AAATTTTAGC 2460
CAAACCTTTT CTATTTTACC TTGCTCTAGA ATTTTTAAAC TGCTATACTT ATCACAAAAA 2520
AACG 2524

(2) INFORMATION FOR SEQ ID NO: 243:

- (1) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2359 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 243:

CGTGCTTGGG GGCTTGTGGT CAAAAGGAAA GTCAGACAGG AAAGGGGATG AAAATTGTGA 60
CCAGTTTTTA TCCTATCTAC GCTATGGTTA AGGAAGTATC TGGTGACTTG AATGATGTTT 120
GGATGATTCA GTCAAGTAGT GGTATTCACT CCTTTGAACC TTCGGCAAAT GATATCGCAG 180
CCATCTATGA TGCAGATGTC TTTGTTTACC ATTCTCATACT ACTCGAATCT TGGGCAGGAA 240
GTCTGGATCC AAATCTAAAA AAATCCAAAG TGAAGGTCTT AGAGGCTTCT GAGGGAATGA 300
CCTTGGAACG TGTCCTGGA CTAGAGGATG TGAAGCAGG GGATGGAGTT GATGAAAAAA 360
CGCTCTATGA CCCTCACACA TGGCTAGATC CTGAAAAAGC TGGAGAAGAA GCCCAAATTA 420
TCGCTGATAA ACTTTCAGAG GTGGATAGTG AGCATAAAGA GACTTATCAA AAAAATGCCG 480
AAGCCTTTAT CAAAAAAGCT CAGGAATTGA CTAAGAAATT CCAACCAAAA TTTGAAAAAG 540
CGACTCAGAA AACATTTGTA ACACAACATA CAGCCTTTTC TTATCTAGCG AAGAGATTG 600
GGCTTAATCA ACTTGGTATT GCAGGTATCT CTCCTGAACA AGAACCAAGT CCACGACAAC 660
TAACAGAAAT TCAGGAATTT GTTAAGACCT ATAAGGTAA AACGATTTTT ACAGAAAGTA 720
ACGCTTCTTC AAAAGTAGCT GAAACTCTTG TCAAATCAAC AGGTGTGGGT CTTAAAACTC 780
TGAATCCTTT AGAGTCAGAC CCACAAATG ACAAGACCTA TTTAGAAAAT CTTGAAGAAA 840
ATATGAGTAT TCTAGCAGAA GAATTAAAGT GAGGAAAGAA TGAAATTA TAAAAATAT 900
CTAGCAGGTT CAGTGGCAGT CCTTGCCCTA AGTGTGTTGTT CCTATGAGCT TGGACGTTAC 960
CAAGCTGGTC AGGATAAGAA AGAGTCTAAT CGAGTTGCTT ATATAGATGG TGATCAGGCT 1020
GGTCAAAAGG CAGAAAACCT GACACCAGAT GAAGTCAGTA AGAGGGAGGG GATCAACGCC 1080
GAACAAATTG TTATCAAGAT TACGGATCAA GGTATGTGA CCTCTCATGG AGACCATTAT 1140

1266

CATTACTATA ATGGCAAGGT TCCTTATGAT GCCATCATCA GTGAAGAGCT CCTCATGAAA	1200
GATCCGAATT ATCAGTTGAA GGATTCAGAC ATTGTCAATG AAATCAAGGG TGGTTATGTC	1260
ATTAAGGTAA ACGGTAATA CTATGTTTAC CTTAAGGATG CAGCTCATGC GGATAATATT	1320
CGGACAAAAG AAGAGATTAA ACGTCAGAAG CAGGAACGCA GTCATAATCA TAACTCAAGA	1380
GCAGATAATG CTGTTGCTGC AGCCAGAGCC CAAGGACGTT ATACAACGGA TGATGGGTAT	1440
ATCTTCAATG CATCTGATAT CATTGAGGAC ACGGGTGATG CTTATATCGT TCCTCACGGC	1500
GACCATTACC ATTACATTCC TAAGAATGAG TTATCAGCTA GCGAGTTAGC TGCTGCAGAA	1560
GCCTATTGGA ATGGGAAGCA GGGATCTCGT CCTTCTTCAA GTTCTAGTTA TAATGCAAAT	1620
CCAGCTCAAC CAAGATTGTC AGAGAACCAC AATCTGACTG TCACTCCAAC TTATCATCAA	1680
AATCAAGGGG AAAACATTTT AAGCCTTTTA CGTGAATTGT ATGCTAAACC CTTATCAGAA	1740
CGCCATGTGG AATCTGATGG CCTTATTTTC GACCCAGCGC AAATCACAAG TCGAACCGCC	1800
AGAGGTGTAG CTGTCCCTCA TGGTAACCAT TACCACTTTA TCCCTTATGA ACAAAATGTCT	1860
GAATTGGAAA AACGAATTGC TCGTATTATT CCCCTTCGTT ATCGTTCAAA CCATTGGGTA	1920
CCAGATTCAA GACCAGAAGA ACCAAGTCCA CAACCGACTC CAGAACCTAG TCCAAGTCCG	1980
CAACCAGCTC CAAGCAATCC AATTGATGAG AAATTGGTCA AAGAAGCTGT TCGAAAAGTA	2040
GGCGATGGTT ATGTCTTTGA GGAGAATGGA GTTCTCGTT ATATCCAGC CAAGGATCTT	2100
TCAGCAGAAA CAGCAGCAGG CATTGATAGC AAATGGCCA AGCAGGAAAG TTTATCTCAT	2160
AAGCTAGGAA CTAAGAAAAC TGACCTCCCA TCTAGTGATC GAGAATTTTA CAATAAGGCT	2220
TATGACTTAC TAGCAAGAAT TCACCAAGAT TTAAGTGATA ATAAAGGTCG ACAAGTTGAT	2280
TTTGAGGCTT TGGATAACCT GTTGAACGA CTCAAGGATG TCTCAAGTGA TAAAGTCAAG	2340
TTAGTGGAAG ATATTCTTG	2359

(2) INFORMATION FOR SEQ ID NO: 244:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1052 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 244:

TTCTTTCTGC TATAATCGTA TAAATACTT ACTTTAGGAG TTCTTATGAA AGTTGTAAA	60
TTTGAGGTA GTTCTCTGCTCTGCTAGT CAATTAGAAA AAGTTTAAA CATCGTCAA	120
AGCGATTCAG AGCGTCGTT TGTAGTCGTT TCTGCGCCTG GTAAACGCAA TGCTGAAGAT	180

1267

ACTAAGGTTA CGGATGCCCT GATTAAATAC TACCGCGACT ATGTTGCGGG TAACGATATT	240
AGCAAGAACC AAAGCTGGAT TATCGACCGC TATGCTGCTA TGGTTAGTGA ATTGGGACTA	300
AAACCAGCTG TGCTAGAAAA AATTTCTAAA AGCATTACAG CCTTGGCCAC TCTTCCTATT	360
GAAGAAAATG AATTTCTCTA CGATACTTTC CTAGCAGCCG GTGAAAATAA CAATGCCAAA	420
TTGATTGCTG CCTACTTTAA CCAAATGGT ATCGATGCAC GCTATATGCA CCCTAGAGAA	480
GCTGGGATTG TGGTCACAAG TGAACCTGGT CACGCTCGCA TCATTCCATC AAGTTATGAC	540
AAGATTGAAG AATTGACAAA CACCAATGAA GTCCTTGTC TCCCTGGTTT CTTTGGTGTC	600
ACTAAGGAAA ATCAAATCTG TACTTTCTCA CGTGGAGGTT CTGATATTAC AGGTTCTATC	660
ATTGCTGCTG GTGTCAAAGC TGACCTCTAT GAAAACTTTA CGGACGTTGA TGGTATCTTT	720
GCAGCCCACC CTGGTATTAT CCACCAACCA CACTCGATTTC CTGAGTTGAC CTACCGTGAA	780
ATGCGCGAGT TGGCCTATGC AGGCTTCTCA GTCCTTCATG ACGAGGCTCT TCTTCCTGCC	840
TACCGTGGA AAATTCCTCT GGTATCAAG AATACCAACA ACCCTGACCA TCCAGGTACT	900
CGTATCGTTC TAAACACAG TAATGATGAA TTTCCAGTTG TGGGAATTGC TGGTGACTCA	960
GGCTTTGTCA GCATTAACAT GTCGAAATAC CTCATGAACC GTGAGGTGG ATTTGGCCGC	1020
AAGGTTCTGC AAATCCTGGA AGAACTTAAC AT	1052

(2) INFORMATION FOR SEQ ID NO: 245:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 855 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 245:

CCCTCGAAAA CTAAGCCGAT GAAGTCAGAA CACTTCAATC CTGTTCTGTA CTGGTGGGAA	60
AATCGTGAAG AGATTCTGGA AGGTAAGTTC TACAAATCTA AATCATTAC ACCTAGTGAA	120
TTGGCTGAGT TGAATTATAA TTTAGACCAG TGTGACTTTC CAAAAGAGGA AGAGGAAATC	180
TTAAATCCCT TTGAGTTGAT TCAGAATTAT CAAGCGGAAA GAGCAACTTT AAATCATAAG	240
ATTGATAATG TATTAGCTGA TATTTTGAG TTGTTGGAGG ACAAATAATG ACACCAGAAC	300
AACTTAAAGC AAGTATTCTC CAAAGAGCGA TGGAAGGGAA ATTAGTGCCG CAAAATCCCA	360
ATGACGAACC TGCAAGTGAA TTATTAAAGA GAATTAAAGC TGAAAAAGAA AAACCTATCA	420
GTGAAGGAAA AATCAAACGA GATAAAAAGG AAACGAGAT ATTTCGTGGT GATGATGGGA	480

1268

AACATTATGG GAAGTTTGCT GATGGAAGCA CTCAGAAAAT TGATGTTCTT TATGATATTC	540
CTGATACTTG GGAGTGGGTG AGGATAAAAT CAATTATTG GAATTTGGG CAAAATAAGC	600
CAGAGAAATC CTTTAGGTAT ATAGATACGT CTAGTATTGA TAGAAAAAG AACATAATCA	660
ACTACAAAA TCTACAATAT CTTTCACCTG AACAAGCGCC TTCCCGTGCT AGAAAATTAG	720
TTTCGCAGAA TAGTGCTTA TTTTCAACAG TTAGACCATA TCTAAAAAT ATTGCTGTAG	780
TTAGAGAACT TAAAGAGTAT TTGATAGCTA GTACAGCATT TAATGTTTG GGATACTTTA	840
CTTAACGAAA CATAT	855

(2) INFORMATION FOR SEQ ID NO: 246:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 660 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 246:

TTTAGGAAGG CTATCCGTAA TTTTACAAAG GATTTAGATA TTACAGAGGA ACATTTAGAT	60
ATTATCAAAA GAGAGATGTT TGGCGAATTT TTCAGTAGCA TGAAGTCTCT TGAATTTATT	120
GCAACGCAAT ATGATGCTTT TGAAGTGGT GAGATAATTT TTGATTTGCC GAAAATTTTA	180
CAGGAAATTA CTTTAGAGGA TGTCTTGAT GCTGGACATC ATTTAATAGA TGATGGTGAC	240
ATAGTTGATT TTACAATATT CCCATCGTAG TAACCTATTA TAATAGACAC TAGAAAGAAG	300
GGATGACAAG TATGAGAAA AAAACAATTG GAGAGGTTT ACGATTAGCT AGAATCAATC	360
AGGGATTGAG TTTAGATGAA TTGCAGAAA AGACAGAAAT CCAGTTAGAT ATGTTGGAAG	420
CAATGGAAGC AGACGATTTC GATCAACTTC CAAGTCCTTT TTACACGCGT TCTTTCTTGA	480
AAAAATATGC ATGGGCTGTT GAGTTAGATG ACCAAATTGT TTTGGATGCT TATGATTCTG	540
GGAGTATGAT TACTTATGAG GAAGTAGATG TTGATGAAGA TGAGTTGACA GGTCTAGAC	600
GTTCAAGTAA GAAAAGAAG AAAAAACAT CATTTTACC TTTATTTAT TTTATCCTGG	660

(2) INFORMATION FOR SEQ ID NO: 247:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1805 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 247:

1269

CCGGTTGCAC AGGATCGTGC ATAGTCAACT CTTCAAGTAT AGCATATCTC CTATTTTCTT	60
ACAAGTAATA ACACCTAAAA TGAAGCTTTT TCTTTTACTT TTTTCTGCCA AGAGGCAAAA	120
AGCATGCTGA GGTAAAAAAC GCTCATCATA ATAGGAACAC CAAGAATGGT CTTTTCATGA	180
TAGAAAAATCG TCAAAATAGGC TGAAAAGACA ACGCCAAGGA CAAAACACT AAGCAGGCTA	240
ACAAATATGA ATCCTTCACG CAAAAAAGGA GTGTGCTTGG TTCGGAAATA ATCTCCAAAA	300
GCCAGCATGG TCCGTTTGAT ATTCCCTGTC ATAAAAGCGT TATTATAGGC AATACCCGAC	360
ACTTCTCCAA AAGCAGTTGT CACCAGTCCC ATACAGAAGG CCAAGGGCGG CACTAGATAG	420
ATATTATCCA CAGTTTGCGG CACAAAAGCA ATAATGATTG ATAAGATTGC CAAGGGAATC	480
AAGGACAGAA TAGGTTTTTT CACAATCTC AATTTTCTT TATAAATCGT TAATAAAAAG	540
ACTCCCATCA TAAACGCTAG CAAGGTGAGA ACCTGTGCCC TAACATCCGA AACATTATTT	600
TTAATTAAAT CTACTGAAAG AAAGACAACA TTTCCAGTTT GTCCAGCTAC AAGGGTATTC	660
CCGCGAACAA TAAAGTGTA AGCATCCACA TATCCAGCAC AAAACGTCAA AAAAAGTGCT	720
AACTTTTAG ACTGACGTGA TATTTTCTT ATAGGTAATA ACCTCATTTT ACCTCCCAT	780
GTATTTCTC TTAGAAATAT TGTACCATT TCTTTCTAAA AAATCGTAGG CTACCATTTA	840
GATTTTACTA TTAGCATAAA AATAATAATA GACAACTATT TATCCAAAA TAGATAGATG	900
TAACATGTTT GCAACAAAG CATACGAACC TTTAGTAAAA TCATTTCCAT GAAACTAGAA	960
TAGAGCCCTC TTAGCAAAAA TCATTATTTT AATTATTTT TAATCACTCC TTGACATAAA	1020
TAACTCTCAC CAATAAAGA CTATGTCCTA AAAAAATGGT ATAATAAAAT CAATACTTGG	1080
GCTTGATGGC TATGCTACTA ATAACAATTA GGAGAGAAAA TCAGGCACCT GTTAACAACA	1140
AGGATTATCC CCTTGAGATG AAAGGAACTT TAGAAATCTT ATGATGAACA TGCAAAACAT	1200
GATGCGTCAA GCACAAAAAC TTCAAAAACA AATGGAACAA AGCCAAGCTG AACTTGCTGC	1260
TATGCAATTT GTTGCAAAT CTGCTCAAGA TCTTGTCCAA GCGACCTTAA CTGGCGATAA	1320
GAAAGTTGTC AGCATTGATT TCAATCCAGC TGTCGTTGAC CCAGAGGACC TTGAGACTCT	1380
TTCTGATATG ACCGTTCAAG CCATCAACTC TGCTCTTGAA CAAATCGATG AACTACCAA	1440
GAAAAAACTG GGTGCTTTTCG CTGGGAAATT ACCTTTCTAA AAACAAGGAG CTAGAACAAT	1500
GCTTGTGATG AACAAAGCT AAGAAAGGTG CAAAAATGAC TCTATAATAT TTGTAGTGGG	1560
TAAATCCCTT ATGGATATTA TGGAGCCTAT TTTTGTGTAG AAAAAAGTCC CATATGACCT	1620
ATAATGAAAA GCGACAAAAC AACTCATTAG AAAGAATCAT ATGGAACAAT TACATTTTAT	1680
CACAAAATTA CTAGACATTA AAGACCCTAA TATCCAGATT TTAGACATCG TCAATAAGGA	1740

1270

TACACACAAG GwAATCATCG CCAAAC TGGr CTATGAAGCT CCATCTTGTC CTGAGTGCGG 1800
AAGTC 1805

(2) INFORMATION FOR SEQ ID NO: 248:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2516 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 248:

CTGCATCTAG TTTGTTTCTC CCTACAGTTT TAGCTAGACA GATTGGAGAT TATGATTTAA 60
CGTCGCCGCG TTGGGGTTCG GATACAAC TA GTAGCTTGA GAAAGAAAAC TCCTCTGCTG 120
GAATTAATAA TAATGACAGC ACTGGTGGCG GTAAAAGSTT AAATACCTCT ATTCGTAGCG 180
CCTATAGTGG GTCAGATATT ACCCCGGTAT ATTCATTGGG GTCTGGCTCT AGGATTGTCA 240
TGTACTATAA TGGAGGTGGT GACAATTATA TTGGTTCTGG TACTAGATTA GCTATGGCGC 300
CACAATTGGG AAATCATGTA AGAATTCATA CTTCAGGTTT TTGGAATCCA GATTCTTATT 360
AACTTACTTG TCAGAGTAAG CCTTAAAGAT GGTGATTGT GGGTGTAGCA TGAAAAAAGA 420
ATGCTACACC CTATTTTAT TATAAGGAGG AGTAAGGATG GAATTTTTC TTTGTAATCT 480
TGTACGAGTC GTTCAATCAC CTCGATTTTA TATGCTTTTA TTTTGGACCC TTCTTTGCAT 540
GAGTTTAGGA AATTTCCTTG CTTTCAATGG TATTATATAA ATTGAAGGTT TATCGATTTT 600
TTTGGCCGCT TCTTCTATTC GAGGATTTTC ACCGATTAGC CTAGTAGCTG CACTTATCTG 660
TACACTGCCC TATTCTAGTC AGATAATAGA GGATGCTGAG AGTCATTTTC TAACAGCACA 720
ATTGTGTCGA ATTTCTAAAA AGAAGTATCT GGCTATTGTG GGTAGTACTG TAATTATTTT 780
TTCTTTTCTA GTCTTTTTC TCCCCTATTT ATTATTATTA GGAATTAATC TTTTAGTGAC 840
TCCTTATCAG GAAATTATA TTGGAGATTA TAGTGGTGCC TTAAAAGAAT TATTTGATTC 900
CAATCAGTTT CTCTATAGTC TTGTAACGAC TCTCTGGTAT GGAGTTTGGG GCGCTGTGTT 960
CTCTATTTTT GGACTAGCTA GTGCTTTGCT AGTGAAGAAA AAAATAGGAG CTATTTTCAT 1020
CCCAGTTGCC TATATGATGG TTGGTGGTAT TTTTGGGCT ATTTAGGGC TATCTTACTT 1080
AGAACCTGTG ACAACGCTAG CTTTGGGATA TCAGAAAGAT ATCAGTCTTT CCTAGTTAG 1140
TGCTCATCTT GCTTTTATTT TATTTGTTAG TTGTTGGTT GTTTATGGTA CATTTTCTT 1200
ACATTCAGAG GACTATGTAT AATGAAACAA TTTGTTCAAT TTTATAAAAA AGATTCTTA 1260
GCAGTATTGG TTTATTTTAT ATTACTGCTA TCCTGTGTTT TATCTAGTAC AGTATATTTA 1320

1271

TTGCGCtGTC GCCAATATTC AATCCATCCA AATGTATTAG AATGGATCTT AGTTTTACTT	1380
CAAGATATGA CGACTGGAGT ATATTGCTTT CCGTTCACAT ATATATTGTT CTTTTTTTAT	1440
TTGATGAATA ACTATTTTAA TAGGTTGGAG TGTCGCATTC GTCTGAAATC AATTAAGCAC	1500
TTTACCACTT TTAGTTTCAA ATTAGCAGCT CTTAGTACGG GGATTGGAC GCGACTTTA	1560
TTTTTATGA TTTTCTAAT TGCATTTAGT AATGGTTTGA GCTTCTCTTT GGAGATAAAG	1620
GAGGTTGATT TTTTAAGAGA ATTTTATGGT ATAAGTATTG CAAACAATGC TAGTTTCTTT	1680
ATAGGATTTT TTTTCTCTTA TATAGCATAC TATTTCTTTT TATCCTTACT TACTATTAGC	1740
AGTTTTTCTT GGTATAAAAA ATCAAACATG AGCTTAGTAT TTCGTGTTAC TTTTATTATT	1800
GTAGAATCCT TATCTGGAT TTATCAGTTG GACAATGGGA TAATTGGATT ATTGCCAATT	1860
TTTCAGTATA TGGTAAATTC CAATCCGTAT GCATTGATTT ATTGGCTTAC ATTACTATCT	1920
ATCATAATTC CATTGACTGT ATTTTCTGTT CATAGAAACT GGAGGAGAGT GTAAAAGTTG	1980
GAAATGGGAA AGTTAAGTAG TCACATGTGG AGGTTGAATC AGATAATCTA TACCAAGTAC	2040
TTTGGGGTTT ATGTTCTTTT TTGGATATTG ATTTGTTTAG GATTATGGTA TTGGTTAGAA	2100
GGAAATGATA GACTTGTTAT AGAAATTTTA AAAGGGCCTA ATCTGAGTCA AAATCTTTT	2160
TTAGTCTTAT CTATATGGTT GCTTCATTGG TTTATTATTC ATACATTTT TCTAGCAGTT	2220
GTATATCGTA GAAGAGCATC CGATTTCTTT ATGGAAGTGA TTCGATTTTC TTCTATTAAG	2280
CTCTGGATTA GGTATCAGAT TTGGACCTGT TTTCTTTATG GACTCATTTT AATCATGGTA	2340
AAAGTTCTAG TGATTCAATT TATGTTACAG TTACCAAACCT GGGATATAGG AGTTTGTGTT	2400
ATAGTTGATT CTTTGAATGC TTGTGTGTTA GTCTTGTTTT GCTTTATGTT ATACGCACTA	2460
GGAGCGAATG TACAAATGAA CTTTGCTTGC GTTAGTTTCT TTTTACTCAT GATTGG	2516

(2) INFORMATION FOR SEQ ID NO: 249:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1364 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 249:

CGGTGTTTTT TTGTAATTT TCTAGCACTT GTATGGTAAA ATAGATACAG GTGTTTCATTA	60
AACTAGACTA AAAACCTATT TAAGCAGGCA AAATGAAGAA ATACCAACAA TTATTTAAGC	120
AAATCCAAGA AACCATTCAA AACGAGACTT ACGCTGTCGG AGATTTCCTT CCTAGCGAGC	180

1272

ACGACCTTAT GGAGCAATAT CAAGTGAGTC GTGATACCGT CCGAAAGcCC TGTCTCTCCT	240
CCAAGAGGAA GGATTGATCA AAAAGATAAG AGGGCAAGGT TCTCAAGTCG TCAAAGAAGA	300
AACCGTCAAT TTCCCTGTAT CCAACCTAAC CAGCTACCAA GAACTAGTTA AAGAACTTGG	360
ACTGCGCTCT AAAACCAACG TGGTCAGTCT GGACAAGATT ATTATTGATA AAAAATCCTC	420
ACTGATAACC GGTTTCCCAG AGTTTCGGAT GGTTTGAAG GTGGTCCGCC AGCGTGTGGT	480
GGATGATCTG GTATCCGTTT TGGATACGGA CTATCTGGAT ATGGAAGTCA TCCCAAATCT	540
CACTCGCCAA ATTGCTGAGC AGTCTATCTA TTCTTATATA GAAAATGGCC TCAAACCTCT	600
TATTGATTAT GCTCAGAAGG AAATCACCAT TGACCACTCA AGCGACCGAG ACAAGATTCT	660
CATGGACATT GGCAAAGACC CTTATGTCGT TTCGATTAAA TCAAAAGTCT ATCTCCAAGA	720
CGGACGCCAA TTTCAGTTTA CCGAAAGTCG CCATAAGTTA GAGAAATTTA GATTGTAGA	780
TTTTGCAAAA CGCAAGAAAT AAAAGACTGA GACACCAGAT CTCAGCCTTT TTCGGCTCTA	840
TAATATTGTT AGTGGGTAAC CCCCTATGG ATATTATGGA GCCTATTTTG TGTAGAAAAA	900
AAGTCCCATTA TGACCTATAA TGAAAAGCGA CAAAACAACT CATTAGAAAG ATTCATATGG	960
AACAATTACA TTTTATCACA AAATGCTCG ATATTAAAGA CCCAAACATC AAGATTCTAG	1020
ACATCATCAA TATGGATACC CACAAAGAAA TTATCGCTAA GCTGGATTAT GAGGCTCCAT	1080
CTTGCCCTGA TTGTGGAAGT CTAATGAAGA AATATGACTT TCAAAAACCG TCTAAGATCC	1140
CTTACCTCGA AACAACTGGT ATGCCTACTA GAATTCTCCT TAGAAAGCGT CGTTTCAAGT	1200
GCTATCATTG TTCTAAAATG ATGGTCGCTG AAACCTCTAT CGTCAAGAAG AATCATCAAA	1260
TTCTCTGTAT TATCAACCAA AAAATTGCGC AAAAGTTGAT TGAGAAGATT TCTATGACCG	1320
ATATTGCTCA TCAGCTGGCC ATTTCAACTT CAACTGTCAT TCGG	1364

(2) INFORMATION FOR SEQ ID NO: 250:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1227 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 250:

CCATGAAGAC CGCTTGAAT TGAATGGCA CAAGTCTTTG TTGAATGGTC TATTTCCATT	60
GACAATCGGT GGAGGAATTG GACAATCTCG TATGGCCATG TTCTACTTC GCAAGAGACA	120
CATCGGAGAA GTGCAACAA GTGTTTGGCC TCAAGAAGTC CGCGATACTT ACGAAAATAT	180
TTTGTAGAGA ATCGAACCGC AAGGTTGCGT TTTCTTTCTC TTTTGTCTA TAATTTGGTA	240

1273

TAATAAACAG TATGAAAATC GTATCAGGAA TCTATGGGG ACGTCCCCTC AAGACACTAG	300
AAGGCAAGAC GACAAGACCT ACTTCGGATA AGGTTAGGGG AGCCATTTTT AACATGATTG	360
GTCCCTACTT TGAAGTGGGA CGAGTCTTGG ACCTTTATGC AGGTAGTGGT GGTTTATCTA	420
TCGAAGCAGT ATCGCGTGGC ATGTCCAGTG CTGTTTTGGT GGAGCGAGAC CGTAAGCTCA	480
GACCATCGTG GCTGAAAATA TCCAGATGAC CAAGGAAGTT GGAAAATTTT AACTCCTCAA	540
GATGGATGCA GAAAGGGCAT TGGAACAGGT ATCTGGGGAA TTTGACCTCG TTTTCTTAGA	600
CCCTCCCTAT GCCAAGGAAC AAATCGTAGC AGATATTGAA AAAATGGCTG AGAGAGAGCT	660
TTTTTCTGAA GATGTTATGG TTGTGTGCGA GACGGATAAA GCCGTTGAAC TTCCAGAAGA	720
AATTGCCTGT CTGGGTATCT GGAAGGAAAA GATTTATGGA ATTAGTAAGG TGACAGTCTA	780
TGTCAGATAA GATTGGCTTA TTCACAGGCT CATTTGATCC GATGACAAAT GGGCATCTGG	840
ATATCATGTA ACGGGCGAGC AGACTTTTTG ATAAGCTTTA TGTGGGTATT TTTTTAATC	900
CCCACAAACA AGGATTCTC CCTCTTGAAA ATCGTAAACG GGGGTTAGAA AAGGCTGTGA	960
AACATTGGG AAATGTTAAA GTCGTGTCTT CTCATGATAA ATTGGTGGTC GATGTCGAA	1020
AAAGACTGGG GGCTACTTGC CTAGTGGGAG GTTTGAGAAA TGCGTCGGAT TTGCAATATG	1080
AAGCCAGTTT TGATTACTAC AATCATCAGC TGTCTTCTGA TATAGAGACT ATTTATTTAC	1140
ATAGTCGACC TGAACATCTC TATATCAGTT CATCAGGCGT TAGAGAGCTT TTGAAGTTTG	1200
GTCAGGATAT TGCCTGCTAT GTTCCCG	1227

(2) INFORMATION FOR SEQ ID NO: 251:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3652 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 251:

CCGGTCAAGT TAAAAACGCT ATTTCTTCCC ATTTTATTTA TTTTTTAGGA GTGGTAACGT	60
ATCAAAATAG CCCAAGCGTT CTCACCCGTG TGAGTTTGAA TAATGGAACC CGTTTCCAAA	120
ACAGAAATTG GCTTTTCAAC ATAAGCTTGT AAGCTTTCTT TCATCTCTTT TGCCCAATCA	180
TCACTACCAG AATATGAAAT TCCAATCTCT GCTACAGCAC GTTCAGAAAG CGATGTTATC	240
AACTCATCTA ACCATTTTTT AAATGTTTAA GTTCCACGAC CTTTAACCAT TGGCTGCAAT	300
TCATGGTCTT TCATTGTCAT GACAGCACGG ATATTGAGAA GAGAGCTCAA CAAGCCAGTT	360

1274

ACACGGCTAA TTCGTCCACC TTTGACAAGA TTTTCCAAAG TTGAAACACC AATATAAAGC	420
TCTGTATGGT TTTTAACCTC TTCTACATGA GATAAAATTG CCTCCATATC TTTACCTTCT	480
TGAGCTAACT TCGCAGCCTC AACAACTTGG AATTTTCAGGG CTTGGTCAGT GAAGGAACTA	540
TCAACAACAG TCACATCTGC AGTAGATAGG CTAGCACCTT GGCCTGCTGC TTCTACCGTA	600
CCCGAAAGAG CATGGGACAT ATGAATAGCA AGAATCTGGC CACCATCTTT GCATAGGTCT	660
TCAAAAATCT CAGCAAAGAC ACCTACAGGT GGCTGACTTG TTTTCGGAAG ATTCTTACTT	720
TCTTGCAATCA ACTGAAGAAA TTTACCTTCT TCTTTCAAAT CCGCATCAGA ATAAACAACA	780
TTATCAATCA TTACAGATAA TGGAACAATT GTAATATCTA ATTGCTTTAC TAGTTCAGGT	840
TCAATAGTAA CAGATGAATC GGTTACAATC TTAATTTTGG TCATAGTATC AATCTTTCTA	900
TTTTAGGATT CAGATTGGTT TCCTTACTTC TAATTATATC AAAAAAAGA TTA AAAATCC	960
TAATGGAGTC AATCAAATTT TCCGTAAAT TTGATATAAT CAACTTATAA GAAAAGAGGT	1020
GTCCTATGAT TAAAAAATT TACCCCATTT TTACCATTTT ACTAGGTGCT GCTATTTATG	1080
CTTTTGGACT GACTTATTTT GTAGTTCCCC ATCATCTCTT TGAAGGAGGG GCGACAGGCA	1140
TTACCCTCAT CACCTTTTAT CTTTTTAAAA TCCCTGTTTC CCTCATGAAC CTGCTGATTA	1200
ATATTCCCTT TTTTCATCTA GCTTGGAAGA TTTTGGAGC CAAATCCCTC TATTCTAGTT	1260
TACTAGGAAC CTTAGCTTTG TCCGGCTGGT TAGCTTTTTT TGAGCATATT CCCCTTCATA	1320
TTGATCTTCA AGGTGATTTA CTAATCAGAG CCCTTATAGC GGAATCCTA TTGGGAATTG	1380
GCCTTGGAAT TATTTTTAAT GCTGGAGGTA CAACTGGCGG AACTGATATT CTAGCTCGTA	1440
TTCTCAACAA ATACACTCAT ATATCCATAG GAAAACCTGCT CTTTATCTTA GATTTTTGTA	1500
TTCTCATGTT GATTCTCCTA ATCTTCAAGG ATTTGAGATT GGTTCCTAC ACGCTTTTGT	1560
TTGATTTTAT TGTTTCTCGT GTTATTGATT TGATTGGTGA AGGAGGATAT GCCGGCAAAG	1620
GCTTTATGAT TATCACAAAA CGTCCTGACC AACTTGCTAA GGCGATTAAT GATGACCTCG	1680
GAAGAGGTGT TACTTTTATT TCTGGTCAAG GCTACTATAG TAAAGAAAAA TTGAAAATCA	1740
TCTACTGTAT TGTCGGAAGA AATGAAATTG TGAAAACGAA GGAAATGATT CATCGAATCG	1800
ATCCTCAAGC CTTTATAACT ATTACAGAAG CCCATGAAAT CCTAGGAGAA GGCTTCACCT	1860
TTGAAAAAGA ATAAAAAGAG GTAATGTCGT GACCTCAAAA GTTAGACTAA ATCATCTATC	1920
TTTGGGTTA CAGACAACCT CTTTTTTATT TTATTTACTC AAGCTCTTAA GACCAATTCC	1980
GAGTTACTTC TTCATCAGCC TTTAACTGAT CCACTAATTG GTCAACTGAG TCAAATTTGG	2040
TCATATCTCG AATGCGATCA AGCCAATAAA CCATGACGGT TTCCCCATAA ATATCTTGAT	2100
TAAATCAAA AATATTGACT TCAAAACGTG CTTCTTCTCC ATCAAAGGTC ACATTTTTC	2160

1275

CGACACTAGC CATAGCACGA TACTTCTGTC TTTGAATCTC AACATCAACA ACATAAACGC	2220
CATCTGCTGG CATATAAGTA CGGTCTAAAA GCACTAAATT CGCTGTCGGA TAACCAATTG	2280
TACGACCACG AGCATTACCA TGAACCACCA TACCTCTTGA TGGAAGCGGT GCCCCAAAA	2340
GTTTTCCTGC TTCTTTCACA TTTCCATCTA AAATAGCTTG ACGGATACGA GTTGAATAA	2400
TCCTTTCCTT CTCACTTCT ACAGGTGGAA CAATGATAAC TTCTCCATCA AAGTAATTCT	2460
TTAAATCTTC TGCTGTTTTT TTGTCAGAAC CAAATGTATA ATCAAAACCT GCAACAATAA	2520
TTTTGGCATT CATAGCCTTG ATATAAGTTG CAAAGAAATC TTGTGCAGTG AGACTAGCGA	2580
ATTGACTACT AAAATCAAGG AGATATAATT CTCTACACC TTCGCGCTTT AATTTCCTTT	2640
CACGTTCAGC AGGGTTCAAA ATATGCAAAA ACAAATCTGG ATGATAAGGC TCTAAAGCGA	2700
TCCTTGGAGA TTCATTAAAG GTCATAACGA CGATAGGCAA CAAATCCTTT CTCGCAGCCT	2760
TGTTGGCAAC ACGAAATAAT TCTTGATGCC CCTTATGTAT GCCATCAAAA TAGCCGAGAA	2820
CAACGACTGA ATCAGATGGT GTGCCAATAT CTTTTGGTT TTTTATAGGA ATAGTAATAA	2880
TCATAAAATA ATTATATCAT AGCGATAGCT ATTTCTGGAA CAGAAAATCT GAAATGTTGT	2940
TTTTTTCACA TGAAGTGAC CTGTTTTCAA AAAGCACTTT ATTCTATCGT TGCTTAACTA	3000
TGAACCTTGC AATATCTTTC TCAAAAACCT GTAGGACATC TTCAAAATTT TGCAAGGAGT	3060
GATTAGACTT GTTCGGTAAC CATAAAGTGT CATACTATGC TTATGTATGA AAAAGCAATG	3120
CAACTAACTC CTGAGAAGTT TAAATTACTA ATTGGTGCCG AAAAGGTAGA ATTTAGAAATC	3180
GAGGTACACC TATGGCTGTA AAATTTACAA AATGAGACAA CTTGGGCAAG ATGTTTGAAG	3240
AATTTCTTAA ACTCCCTGAT TTGAAGCAAG TCACCTTCCC TAATGACAAA GAAAAAGCC	3300
AAACAGCAA AGAAAACTA GATGACTGCT TTCCAACAAC TCCCATCTAG TGTGCTTCAG	3360
ACTGGGCTAT TTTTCTCTCC ATCTGTTAGC TTGGATTCTC AGACCGTTTC AGCTAAAGAA	3420
TATCTTTTCC CTTATCAGAA GGAACGGCTC AAGCCATTCA GACAAGTGAA GGGACGACAA	3480
GCCAATATTT GAAACCAGAT AGCAGTTCTT ATAGTCAATT GAAATAAAAT CTGAAGAAAT	3540
CGAGTAGGAA ACTCATATCA ATGTTTAACA GTGTTCTATT CCAGATTCAT ACTCAATGAW	3600
AATTAAAGTG CAAACTAGGA AGTTAGCCGC AGGTGATACT TTGGGTACGG CA	3652

(2) INFORMATION FOR SEQ ID NO: 252:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 743 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1276

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 252:

GTACCGTGGT GCCAAAGTAC AGCAAGGTTG GCTTTTGTGAC AAACAATACC AATCTTGGTT	60
TTACATCAAA GAAATGGAA ACTATGCTGA TAAAGAATGG ATTTTCGAGA ATGGTCACTA	120
TTATTATCTA AAATCCGGTG GCTACATGGC AGCCAATGAA TGGATTGGG ATAAGGAATC	180
TTGGTTTTAT CTCAAATTG ATGGGAAAT GGCTGAAAA GAATGGGTCT ACGATTCTCA	240
TAGTCAAGCT TGGTACTACT TCAAATCCGG TGGTTACATG ACAGCCAATG AATGGATTG	300
GGATAAGGAA TCTTGGTTTT ATCTCAAATC TGATGGGAAA ATAGCTGAAA AAGAATGGGT	360
CTACGATTCT CATAGTCAAG CTTGGTACTA CTTCAAATCC GGTGGTTACA TGACAGCCAA	420
TGAATGGATT TGGGATAAGG AATCTTGGTT TTACCTCAA TCTGATGGGA AAATAGCTGA	480
AAAAGAATGG GTCTACGATT CTCATAGTCA AGCTTGGTAC TACTTCAAAT CTGGTGGCTA	540
CATGGCGAAA AATGAGACAG TAGATGGTTA TCAGCTTGA AGCGATGGTA AATGGCTTGG	600
AGGAAAAACT ACAATGAAA ATGCTGCTTA CTATCAAGTA GTGCCTGTTA CAGCCAATGT	660
TTATGATTCA GATGGTGAAA AGCTTTCCTA TATATCGCAA AGTAGTGTG TATGGCTAGA	720
TAAGGATAGA AAAAGTGATG ACA	743

(2) INFORMATION FOR SEQ ID NO: 253:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4010 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 253:

TTTTGGTTGA TGATACGAGG GATTGGTGA TTCTTCTGA CGATAGAAGT TTCAGCGACC	60
ATCATTTTGG AACAGTGATA GCACTTGAAT CGACGCTTTC TAAGGAGAAT TCTAGTAGGC	120
ATACCAGTCG TTTCAAGATA AGGAATTTTA GAAGGTTTTT GAAAGTCATA TTTCTTCAAT	180
TGGTTTCCGC ACTCAGGGCA AGATGGGGCG TCGTAGTCCA GTTTGGCGAT GATTTCCTTG	240
TGTGTATCCT TATTGATGAT GTCTAAAATC TGGATATTAG GGTCTTTAAT GTCTAGTAAT	300
TTTGTGATAA AATGTAATTG TTCCATATGA TTCTTTCTAA TGAGTTGTTT TGTCGCTTTT	360
CATTATAGGT CATATGGGAC TTTTTTCTA CAATAAAATA GGCTCCATAA TATCTATAGT	420
GGATTTACCC ACTACAAATA TTATAGAACC GAATTAATTT AATTAGAGAG CCAACTTTCT	480
AATATAGTAA TCGCGTCATA ACAAGGTATC TATCATTCAT GGAGTTCCTC CTGTATACTA	540

1277

TTAGTAAAGT AAAACTATTG GAGGATATTT TAATGCCACA ACCTATTGTT CCTGTAGAGA	600
TTCCACAATC TCGTCGTTTT GATTCTAAAA AGAGAAATGA TATTCTGCTT AAAATTCGTA	660
TTGGCAAGCT TGAAGTAAGT TTTTTCAAT CTCTCAATCT CGAAATGGTA GAACAGCTTT	720
TGGATAAAGT GTTGCTCTAT GACAATTCAT CTATCTAGCC TAGGGCAGGT CTATCTCGTA	780
TGTGGGAAAA CGGATATGAG GCAAGGCATT GATTCAATGG CTTATCTGGT TAAAACCCAC	840
TTTGAATTAG ATCCTTTCTC CGGTCAAGTT TTTCTCTTTT GTGGTGGACG TAAAGACCGC	900
TTTAAAGCCC TTTACTGGGA TGGTCAAGGA TTTTGGCTAC TATATAACG CTTTGAGAAC	960
GGAAAACTGA CTTGGCCCAG TACAGAAAAG GATGTCAAAG CTCTCACACC TGAACAAGTA	1020
GATTGGCTTA TGAAGGGCTT TTCTATCACT CAAAAATAA ATTTATCAGA AAGTCGTGAT	1080
TTCTATTGAA ATGAGGACTT TCTTTTTAGT TATAATAAAG TTAGGAAATA AGGAGAGGAA	1140
GCCCATGGAA GAAGATTGAA AATCATTCOA CAACAGAGTG CTACAATTGA TAGTCTCACC	1200
AATGAAGCTG CCCTTCTTCG TGAACAAGTG GCTTATCTAA CGCAAAAGCT CTATGGAAAA	1260
TCCTCTGAGA AAAGTGTGTTG CCCATCTGGA CAACTCAGTC TTTTGAAGA GGAACAAAA	1320
ATGGAAGAAG ACTCTGACTT ACCCAGTTGA AAGAGAAGAA ATCACCTATA AACGTAAGAA	1380
AGCTAAAGGG AAACGTCAAG CTCTTCTTGC CCAATTTGAT TCAGAAGAAG TTCATCATCA	1440
AGTAGAAGAG AGCATTGCGC CTGATTGTCA GGGAGATCTA AAAGAGATTG GAGCAACCTT	1500
TCAACGACAA GAATTAGTCT TTATTCTTGC GCAATTAAAA CGAATAGATC ATATCCAACA	1560
CGCTTATAAG TGCCAAGCAT GCAGTGATAA AAATCCGAGT GATAAAATCG TGAAAGCTCC	1620
TATTCTTAAA GCCCCTTTGG CGCATAGCCT TGGCTCAGCT TCTATTATCG CTCACACCAT	1680
CCATCAGAAG TTTAATCTGA AGGTACCCAA TTATCGCCAA GAAGAAGATT GGGCTAAGAT	1740
GGGTTTACCA ATCACACGTA AGGAAATTGC TAATTGGCAT ATCAAGGCGA GTCAATACTA	1800
TTTGGAGCCC CTTTATAATC TTTTACGAGA AAAGTTGTTA GAACAAGCTC TTCTTCATGC	1860
GGATGAAACC TCTTATCGGG TTCTAGAGAG TGATAGTCAG TTGCCTTACT ATTGGACTTT	1920
TTTGTCTGGG AAAGCTGAGA ATCAAGCAAT CACGCTGTAC CACCATGATC AGCGTCGGAG	1980
TGGTTTAGTA GTACAAGAAT TCCTAGGAGA TTATCTGGC TATGTTCAAT GTGACATGTT	2040
GCGGAGTAA CTTAGGACTT TAGTCCTCTA GTTCTGCCTA TGCGATAGCA GTCCAAGGTT	2100
TAGGAGTAAG GCGACGCTAA GCTTGGTAAA CTGCGAACAG CTAGAAGCTT ATCGTCAACT	2160
GGAAGAAGCT GCACTTGTTG GATGTTGGGC GCATGTGAGA AGGAAGTTTT TTGAAGTGCC	2220
CCCCAAGCAA GCAGATAAAT CATCCTTAGG AGCTAAAGGT TTAGCTTATT GTGATCAGTT	2280

1278

ATTTTCCTTG GAAAGAGACT GGGAGGCTTT GCCAGCTGAT GAACGACTAC AGAAACGTCA	2340
AGAACATCTC CAGCCCCTAA TGGAAGACTT CTTTGCTTGG TGCCGCCGTC AGTCAGTTTT	2400
AGCAGGTTC AACTAGGAA GGGCAATTGA ATACAGCCTC AAGTATGAAG AAACCTTTAA	2460
GACTATTTTG AAAGACGGAC ATCTGGTCCT TTCCAATAAT CTAGCTGAAC GCGCCATTAA	2520
ATCATTTGGT ATGGGACGGA GTAAAAGAGT CCAGTGGACT CTTTGTAGCCT GAGCTCAGTT	2580
TAAAAAAGCG AGGGTGGTTA TTTTCTCAA GTTTTGAAG AGCTAAAGCA AGAGCTATTG	2640
TTATGAGCTT GTTGGAACA GCTAAACGTC ATCAATTATA GTGCGTTGAA TCTATAACAG	2700
TACGCATCGA CTGCTAAAAC ATTTCTATAA ATCAATTTTC CTTTCCTAAT CGATTGTTC	2760
ATATCTTATT TCAATCCATT ATAAATAGCG AGAAATATCT ATCCTATCTT CTAGAATGTC	2820
TTCCAAACGA GGAACTCTC GTAAACAAAG AGGTTTTAGA GGCCTATTTA CCGTGGACTA	2880
AAGTTGTACA AGAAAAGTGC AAATAAGAAA TCTCCAGATT AGGAACTATC CGTGAGTTCT	2940
CTAGTCTGGA GATTTTCAA TAGACTTCGT TATTGGACGG TTACAATTTA TTATATGAAA	3000
ATCCCATTATT ATTTCCAAT TCTATATTTT ACCTTTCTAA ATGTATAGAT TAACTACCTA	3060
ATTATAGCAT ATAACGCAGA TTCCTTTCAA TCGTATGATT TACTGCATTA AATTAAGTAA	3120
AAAAATAAAG GCAGTCCGAA GACTGCCGAT ATTTATCTCT CATCTCTTTA ATTATGGTAA	3180
GTAAATAAAT AATTTCCTA AAGATATGGA AATTATTAAT ACTATAAATA CATATTATAA	3240
AGTTTATAAA TACTGTAAAA ATCCTGAAGT TAATTTTCTA ATAAATATCA ATATGTGTTA	3300
GTATCTTTTA AATTTTAGA CAATTTACTA GTTCTATAGA CATGTTTAAC AGACTCTATT	3360
TTACAATTCA AAAATTTTCA CTGCCACTTC ATTTAAAAAT TCTATATCAT GGGAAACAAT	3420
AAAAATTATT TTATCCATGG TTTTATACTT ATTAATCAGT TCAGATATTT TTATCATATT	3480
GGAATAATCC ATACCCTTG AAGGTTTCGT AAAAAAGACA AATGGAGAAT TCTTGCACAT	3540
AACAGATGCT ATTGCAAGCC TTTGCTTTTG CCCTCCTGAT AAATCATCG GATGCCTTTC	3600
AATAAATTCG TCCAGGCATA AATCTTTTAA CCCAAATCAT TCATACCTCT CTCAACTAGA	3660
TGTAACCTTAC AAAACCCCTG ACCTCATGAG CCACTTTCTT CCTCCTCATG AGGTCAGTTT	3720
TACTTTCTGC TGTTCAGTA TCGTTTTTCC TCGCTAGATT TCCTCAAAG GGCAGACTCC	3780
TCCCTTGGTT CGTCACACGA TTTTTCATC TCGACTGTTT TTTAATGCAT CATTAACGAC	3840
GCTTTTCTTC TAGGTGGTTC ATAAGGAACA GGAAGATTCA GGTGACTTT TCTAATCCTA	3900
GAATAAAGTG CTGAAAACAA TTCGGAATAG GCATAGAGAC TAGACAATTT GAGGAGCTGC	3960
TTGCGTCCTG TTCGAACACA TTTTCCACC ACGTGAAGAA AAAGATGGCG	4010

(2) INFORMATION FOR SEQ ID NO: 254:

1279

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2789 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 254:

ATGCATCCGT TTGTCAAGCC TAAATTGTAA TTTTTTTC	60
TTTAAAACAG AAAAACCAG	
GAAATGACA TAAAAATATC ATTCCTAGGC CTATTTATGC	120
TATTTCTCTC TGAAAAATAT	
GAGTATTCAG TCGGTCAAAT GAAGCTGAAC GAACTCATTT	180
TCCCTCGCCT AATTCAATGA	
TTCGATGACA TTGTTGGGCT ACATAAGCAT CGTGGGTCAC	240
GATAATGACT GTTTCCCT	
CTCGATTTCAT CTCTAAGAGA AACTTCAAGA CCAAATCTCT	300
ATTTTCAGGA TCCAGAGAAC	
CTGTGCGTTC ATCGGCTAAA ATCAGCTGGC TGGGTTTAA	360
GATGGCTCTA GCAACTGCAA	
TTGTTGTTG TTGCCCCCA GACAACTCGG AGACCTTTG	420
ATGCAAAGTA GCTGATAAAC	
CTACTCTCTC TAAATCTCT TCCACCTTTT TGAGCTTGTC	480
TTTCTTAGGC AATTTCACAT	
ATTTTCAGCGC CACATGAGAT TGTACTCGAC CGTTTCATCA	540
TCAATCAGGG CAAAATTTTG	
AAACAGATAA GAGATATGTT CACGGATTAT TGTTCGAC	600
TTAGCAGAA TAACCGCTAG	
ATTTGTCTGA CAAAAATCT CATACCGTCC GCTATAATCA	660
CCATCTATCA AACCCAATAA	
ATTTAACAAG GTCGACTTCC CACTACCACT CTTACCAACA	720
ATAGCTACCA AATCCCCCTG	
ATCAATCCTG AGAGATAAGT TATCCAAAAT CACTTTTCCC	780
CCAATGGTTT TGGTAATATT	
TTTCAACTCA ATCATAAGAT GCCCCCTTTC AATAACTCTA	840
CTAGACTTCT TTTCTCCATC	
CTAGAAGCTA AGCCTAGCAC AAATAGTATA TCCAGACATG	900
TAAAACCTGC AAACAGTAGA	
AGTGGTAAGA ACGCATGGGC AAAGAAAATC AAGACTAGAA	960
GAGGGAAACT ATAGCCCAGC	
AAGAGCAGAA CGAGGAGAGG ACGGTAGCGA TCGACCAGTT	1020
TCCACCCCAT AAATTCTTG	
GTAATGATAT CCCTGCGCTT CAATAAGAAA GTTGTACTA	1080
GTAAGAAGTA GGAAATCATC	
ATGCTAAGGA GACCAAAACAA AGCAAAGAGT AGGTTAAAT	1140
TCCGAACAGC ATCTCGATAA	
GAATCCACTT TCTCTGTTG AATGGCTTGA ATAGATGAAA	1200
ATTTTAAATA ATTTCCATCT	
GACAATTTCT CAACTAACT TGTAACTCTT TTTGATGTT	1260
GAACCGTATT TTCAATTTA	
ATCGGATTAT TTAAGCCAGT TGTGACAGG GAGGCTTTCT	1320
CATCCACAT CATATCAGAA	
TCATTGACCA AGCTAATAAT TGGATTGGAG AGATTTTCCT	1380
TTGCTTATC ACTATATGGG	
AAAAATGACC AATCTCCTTC ATAATAGGCA ATCTCGACAT	1440
CCATCTCCTC TATCGTTCGT	

1280

TTTTGCTGCT CTTCACTACTT CATCGAATGA AAGGCAATTA ACTTCCCCAA GAGCTGATTT	1500
TTATCTTCTT CACCTTTCGT ACTTGCTGGC ATCAAAATAA CTTTTTTAAT ACCGGTATTT	1560
GGTAGCTTGA ATCCCTTGCT CTTTAGAAAA TTGCGATTGG CATAGTAAAC ATCCACCGTA	1620
TCTGTTAACT GATATTGCTG AATCTGTTCT GATTGGACAA AATTTTTTAC AGGAAGACTG	1680
CTACTCTGCA CATAGCCCGC CTGCGTTTTT TCTACCAAAT CCTGATAAAA TCGATAGAAA	1740
TAATCTGTAG ATTTCCCTGA CCCTGCTAGC TCTTCTTGCC ACAGATTATC ATTGAGTTTG	1800
AAGGTTTCTA AGGTCAGGTA ATTACCTTGA CTTACCCACT GTTGCTGATA AGCAAGTTCT	1860
TTGTTTTCTT GTTCTAACT TCTGCCACC CCAATCAGTA AGGCCGTCAG TAAAATAGTT	1920
GTCCCTATTT TCATCACATA ATTGAAGATA AGACCAAAT TGAAAGATGA AAAACCTTTC	1980
AGCAGAGAGC TGATTGTCAT TTTTGGATT AAGAGGTAAG TCAACCAACT GATAAAGAGA	2040
TAAAGCTGCA ACAGCAAAAA ATGAGACAAC CACAGCATAG GAAACAAATC TTTTGGCTTA	2100
TAATCAAGCA AGAAAAACAC GCCTAGATTG ATCACAAGAG CCCCACCTAG GAGGAGGTAA	2160
AGGTGTCCTT TTACAACATC AGCTAAAACA GCCCTATCTT GAAAACCAAG TAATTTTTGT	2220
ACCCCAACTC TTTTCATCTC CATCATCGGT TGATACACTG TCACTAACAC AAGAAGCAAA	2280
ATAGCCAAGA CAAAAACAAT GGCAGATAAA AGCAAATCTC GATTTATGAC TTCCACTGCA	2340
CTTTGTAGG TCGGCTCTAG CAAGGTAGCC TGGTCTATCT TGAAAAAATC GCTCCATTTC	2400
TGTACAATCC TATCCTTGTC CATCTCTTGT GTAGAAGTTA TCGTATAGCG ACCATTTAAA	2460
CTACGAGATG TATCCTTGAT ATAGGTTTGA AAAGTCATAA GCTGAATAGG TTTGGCTTTT	2520
AGAAAGGTCG GAATCGTACC AAGTTTATTG GAAATTTCTT TATTACTATA GACTCCTTCA	2580
CCATCTGTGG TAAAATCAAG AGAAGAAATC CCAAATCTT GGTAGGGGAA GGTATCTTTA	2640
TCAAAAACAC CAGACTTGAC CACCTCATCA CCACTGTCTG TTTTGATGAT GGAGACTTTA	2700
TACTCCTTTG ATACATCCTC AAAAAATCGA AGAACAGACG CTGCAGGTTT GTTAATATCT	2760
TTCAAATACA AATCCAAAGA ATCTACAGG	2789

(2) INFORMATION FOR SEQ ID NO: 255:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2495 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 255:

CTGCGAATTT TATTAAAGAT AATGTGTTAA TTACAGCGGC TCACAACTAC TACAGACATG	60
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1281

ACTATGGGAA AGAAGCGGAT GATATTTATG TTCTTCCGGC TGTTAGTCCA AGTCAAGAAC	120
CATTTGGAAG GATCAAAGTA AAGGAAGTTC GTTATTTGAA GGAATTTAGA AATTTAAATT	180
CTAAGGATGC AAGGGAATAT GACTTGGCTT TATTAATTCT AGAAGAGCCC ATTGGTGCAA	240
AATTAGGGAC TTTGGGTCTT CCTACTAGTC AAAAAAATT GACAGGAATA ACTGTGACTA	300
TCACAGGCTA TCCATCATAT AATTTTAAAA TTCATCAAAT GTATACAGAT AAGAAACAAG	360
TTTTAAGTGA TGATGGCATG TTCTTGGATT ACCAAGTTGA TACTTTAGAG GGGTCTAGTG	420
GATCTACAGT TTATGATGCT AGTCACCGTG TAGTAGGAGT GCATACTTTA GGAGATGGAG	480
CTAATCAAAT TAACAGTGCA GTTAAATTAA ATGAACGAAA TTTGCCATTT ATTTAWTCGG	540
TTCTTAAAGG TTAATCTCTT GAAGGATGGA AGAAAAATAA TGGTAGTTGG TACCATTATA	600
GACAACATGA TAAACAAACG GGTGGCAGG AGATAAATGA TACCTGGTAT TATTTAGACA	660
GTTCCGGTAA GATGCTTACA GATTGGCAAA AAGTCCATGG AAAATGGTAT TATCTCAATT	720
CAATGGAGC AATGGTTACA GGTAGCCAAA CTATCGATGG TAAAGTTTAT AACTTCGCTT	780
CATCTGGTGA GTGGATTTAA TGTGGAGGA TATATAAAAT GAAGCTTTTG AAAAAATGA	840
TGCAATCGC ACTAGCCACA TTTTCTTCG GTTTGTTAGC GACAAATACA GTATTGCAG	900
ATGATTCTGA AGGATGGCAG TTTGTCCAAG AAAATGGTAG AACCTACTAC AAAAAGGGGG	960
ATCTAAAAGA AACCTACTGG AGAGTGATAG ATGGGAAGTA CTATTATTTT GATCCTTTAT	1020
CCGAGAGAT GGTGTGTCGC TGGCAATATA TACCTGCTCC ACACAAGGGG GTTACGATTG	1080
GTCTTCTCC AAGAATAGAG ATTGCTCTTA GACCAGATTG GTTTATTTT GGTCAAGATG	1140
GTGTATTACA AGAATTTGTT GGCAAGCAAG TTTTAGAAGC AAAAAGTCT ACGAATACCA	1200
ACAAACATCA TGGGAAGAA TATGATAGCC AAGCAGAGAA ACGAGTCTAT TATTTTGAAG	1260
ATCAGCGTAG TTATCATACT TTAATACTG GTTGGATTTA TGAAGAGGGT CATGTGTATT	1320
ATTTACAGAA GGATGGTGGC TTTGATTTCG GCATCAACAG ATTGACGGTT GGAGAGCTAG	1380
CACGTGGTTG GGTTAAGGAT TACCCTCTTA CGTATGATGA AGAGAAGCTA AAAGCAGCTC	1440
CATGGTACTA TCTAAATCCA GCAACTGGCA TTATGCAAAC AGGTTGGCAA TATCTAGGTA	1500
ATAGATGGTA CTACCTCCAT TCGTCAGGAG CTATGGCAAC TGGCTGGTAT AAGGAAGGCT	1560
CAACTTGGTA CTATCTAGAT GCTGAAAATG GTGATATGAG AACTGGCTGG CAAAACCTTG	1620
GGAACAAATG GTACTATCTC CGTTCATCAG GAGCTATGGC AACTGGTTGG TATCAGGAAA	1680
GTTCGACTTG GTACTATCTA AATGCAAGTA ATGGAGATAT GAAAACAGGC TGGTTCCAAG	1740
TCAATGGTAA CTGGTACTAT GCCTATGATT CAGGTGCTTT AGCTGTTAAT ACCACAGTAG	1800

1282

GTGGTTACTA CTTAACTAT AATGGTGAAT GGGTTAAGTA ATGAAGGCTA ATTGTAAACT	1860
GTGATGGATA CTTAACTTTG TATAATAGGT GGATAAAAGT CTTCAACAATC AAAAAACGCA	1920
TAGTATCAAG GTTTTTCTGT ACTGCCCTCA AACAGTTAGA CAATTAATTT ATCCGAAGgA	1980
TTTAGTTCTG TATTGCACAG GGCTAAGTCC TTTTAGTTTT ACCTTAATTC GTTTATTGTT	2040
GTAGTAATCA ATATAGTCTA TAATGGCTTG TTCCAATTGC TTAAGCGACT GAAACGACTT	2100
CTCATAACCG TAAACATTT CCGATTTCAG AATCCCAAAG AAGGACTCCA TCATACTATT	2160
GTCTGGGCTG TTTCCCTTAC GTGACATGGA TGCTTGAATT CCCTTACTCT CTAGGAACCG	2220
ATGATAAGAA TCGTGTGGT ATTGCCAGCC TTGGTCACTA TGGAGAATCG TATTCTCGTA	2280
GTGCTTCTCT GTGAATGCCT GTTCCAACAT TGTTTGTAAT TGTCTAAGT TGGGTGAAGT	2340
TGAAAGATTA TAGGCGATAA TTTGCTATT AAAGCCATCT AAAACTGGTG ATAAGTAAAG	2400
CTTTTGAGTA CTTGCTGGAA TGGCAAATTC TGTACATCT GTGTAGCACT TTTCCATTGT	2460
TTTAGAGCCT TCAAATGGC CTGAATGAG ATTCG	2495

(2) INFORMATION FOR SEQ ID NO: 256:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 870 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 256:

TACCACCGTA TTCATCCAGC AAGATTGCCA TTTGTCTTTG GGTATTTTCG AGTTCTTTTA	60
GCAAGTCATC CACAAAAATA GTTTCAGGTA CAAAAAGTGG ATCTTGTAAG ATTCTCTTCC	120
AAACAATATT GTCAAAACCG TCCACAAAGC CTGCCCTAAG GAGACTCTTG GTGTGAATGA	180
TTCCAATTAC ATTGTCCTTA TCCCCATCAT AAACCGGGAT ACGAGAATAA TTTTGTTTTA	240
AAATACTTTG GATAATGGCT TGACTATCAT CCTGAATATC CACCATAAAG GCATCCGTTT	300
GAGGAACCAT AACCTCTCGT GCCATCAGTT CATCGAGCGA AAAGACACCT TGTAGCATCT	360
CAATCTCATC AGCATCCAAT GTTCTTTCAC TATTTGTCAG CATATAGGCA ATTTCATCAC	420
GGGTCATCTT TTCATCCGCA TCATCGAATG ACATAGGAGT CAAATGGCTC AAGAAATTGG	480
TCGAAGCAGC TAAAAGCCAA ACAAAGGAC TGACTAGTTT TCCGATCCCA ATGATAATCG	540
GCGCTGTACG AATTGCCAAG GCATCCTTTA GATTAAGAGC GATTCTCTTA GGATATAATT	600
CCCCAAAAAC GATGGAAATA TAGGTCAAAA ATGCCAAGGA TAGAAAAGTT GCCACGGCTT	660
GTGCTGTTTC GCCATTCCCA AGCCAAGAGG CAATCACACG TCCTAGAGTA TCAGTTAAAC	720

1283

TCGCCCCCTGA TAAGATTGTA ATCAGGGTGA TTCCTACCTG GATGGTTGAT AAAAAAGTGGT	780
TAGGATTTTC TAGTACCTTC AGCAGGCGGA TGTAGCGTCT GTCTCCTTCT TCCGCCTTTT	840
GTTCAACTCG GGCACGATTA AGAGAAACGG	870

(2) INFORMATION FOR SEQ ID NO: 257:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1245 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 257:

CGTTCCCAAG AGCCCCGATT CTCATCGCCA ATGTCGTGAT TGATTTGGCC CTTTCTCCAA	60
AATCCAATC AGCCTATGTA GCTATGGATA AGGCACTTGC TGACCTCAAA ACATCAGGGC	120
ACTTGCTTAT TCCGCGACAC CTGCGTGATG GGCACCTACAG TGAAGCAAG GAACTGGGGA	180
ATGCCCAAGA CTATCTCTAT CCACACAAC ATCCTGGAAG TTGGGTCAAG CAAGACTATC	240
TGCCAGAAAA AATTCGTAAT CATCACTATT TCCAAGCAGA AGATACTGGT AAATATGAAC	300
GGGCTTTGGC TCAAAGAAAG GAAGCTATCG ACCGTTTGGC AAAAATCTGA AATCCTTTTC	360
AAAAAATTGC ACTTTCCTCT TGATTTTTTT TGAAAAAGTG GTATCATATA AATATAGAAA	420
CGCTGTGGTG TACGACTTCA CACTTAAGTG TTGACCGACT ATTTTTTGTA TTATTAGGGA	480
AACAAAAGTC TTCTAACAGC ATGTAGGCCG TCTCACACGG AAACAGCTTC AGTTAGAGCG	540
AGTTGCCCCAC CTGCTTAATT GCGCGGGTTC AATACAAACC GTGAAGTTTC GGCACCAATA	600
CAGCTTTTTT CTTTGCCTCC TTAGCTCAGC TGGCAGAGCA GCGGACTCTT AATCCGTGGG	660
TCACAGGTTT GATCCCTGTA GGGGCGATAT AAATACAACA GGAAAGCCT TATAATATAG	720
GGCTTTTTTT GCTTTCCTTT TAAAAATTGT CGTGCAATTT GCCGTGTTTT TACAACAAAC	780
TTTTACAGC CATAAACTCC TCACTAATTT TTCTCTCCAA GGTATGCCCA TAAACGTCAA	840
TCAACATGGA GATATCTTTA TGTCTTAAAA TTGGCTCTT TGTCACTGT AGTGGGTTGA	900
AGTCAGCTAA GCTCGAGAAA GGACAAATTT TGTCTTTCT TTTTGATAT TCAGAGCGAT	960
AAAAATCCGT TTTTGAAGT TTTCAAAGTT CCGAAAACCA AAGGCATTGC GCTTGATAAG	1020
TTTGATGAGA TTATTGGTCG CTTCCAATTT GCGGTTAGAA TAGTGTAGTT GAAGGGCGTT	1080
GACGATTTTC TCTTTGTCTT TTAGAAAGGT TTAAAGACA GTCTGAAAAA GAGGAGGAAC	1140
CTGCTTTAGA TTGTCTCAA TGAGTCCGAA AAATTTCTCC GGTGCCTTAT TCTGAAAGTG	1200

1284

AAACAGCAAG AGTTGATAGA GCTGATAGTG ATGTTTCAAG TCTTG

1245

(2) INFORMATION FOR SEQ ID NO: 258:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1684 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 258:

ATGCCTATGT AACTCCACAT ATGACCCATA GCCACTGGAT TAAAAAGAT AGTTTGTCTG	60
AAGCTGAGAG AGCGGCACCC AGGCTTATGC TAAAGAGAAA GGTTTGACCC CTCCTTCGAC	120
AGACCATCAG GATTGAGGAA ATACTGAGGC AAAAGGAGCA GAAGCTATCT ACAACCGCGT	180
GAAAGCAGCT AAGAAGGTGC CACTTGATCG TATGCCTTAC AATCTTCAAT ATACTGTAGA	240
AGTCAAAAAC GGTAGTTTAA TCATACCTCA TTATGACCAT TACCATAACA TCAAATTTGA	300
GTGGTTTGAC GAAGGCCTTT ATGAGGCACC TAAGGGGTAT ACTCTTGAGG ATCTTTTGGC	360
GACTGTCAAG TACTATGTCG AACATCCAAA CGAACGTCCG CATTCAGATA ATGGTTTGG	420
TAACGCTAGC GACCATGTTT AAAGAAACAA AAATGGTCAA GCTGATACCA ATCAAACGGA	480
AAAACCAAGC GAGGAGAAAC CTCAGACAGA AAAACCTGAG GAAGAAACCC CTCGAGAAGA	540
GAAACCGCAA AGCGAGAAAC CAGAGTCTCC AAAACCAACA GAGGAACCAG AAGAATCACC	600
AGAGGAATCA GAAGAACCTC AGGTCGAGAC TGAAAAGGTT GAAGAAAAAC TGAGAGAGGC	660
TGAAGATTTA CTTGGAAAAA TCCAGGATCC AATTATCAAG TCCAATGCCA AAGAGACTCT	720
CACAGGATTA AAAATAATT TACTATTTGG CACCCAGGAC AACAATACTA TTATGGCAGA	780
AGCTGAAAAA CTATTGGCTT TATTAAAGGA GAGTAAGTAA AGGTAGCAGC ATTTTCTAAC	840
TCCTAAAAAC AGGATAGGAG AACGGGAAAA CGAAAAATGA GAGCAGAATG TGAGTTCTAG	900
TTCTCATTTT TTTCATGAAA ATGTGCAAAA TATAGTAGAT TGAACTAGA ATAGTATACC	960
TCTACTTCTA AAACATTGTT AGAAATCGAT TTGACTGTCC TGTCTTATT TCATTTTACT	1020
ATATCTTAAC AGATAGTGTA AATAAGATA AACTATTAC TGGCTAATTA ATCAGTTAAA	1080
CACTAGTTAA GGAGTAATGA TGAAAAAAG AACAATACTA TTATTGATGG CCAGTCTGTT	1140
AGCTCTTGTC TTAGGAGCAT GTGGTTTCTT GGACATATTG ATCCTGGATC ATTCTCATCA	1200
GGATTACTCT TTAGTGTAT TTTGAAACT GGGGTGGTTT GATGGAAAGT ATTGGTCTTG	1260
TTATCGTTTC ACATTCCAAA CACATTGCAG AAGGTGTTGT TGAAGTATT AGTAAAGTAG	1320
CTAAAGATGT TCCGATTACT TATGTAAGAG GAACCGAGG CGGAGGAATT GGAACGAGTT	1380

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TTGAACAAGT AGATAGGGTT GTTTCGAAA ATCCAGCAGA TACTTTACTT GCCTTTTTTG	1440
ACCTAGGTTT TGCTAAAATG AACTTAAAAA TGGTGAAGA TTTCAAGTAT AAAAGTATCA	1500
TCATCAACAG GGTTCGAATT GTAGAAGGTG CCTATAATGC AGCTGCTCTT CTTCAAGGCTG	1560
GTGCAGAACT GTCAGTTATT CAAACACAGT TaGCGGAGCt TGAAATCAAT AAATAAGGAA	1620
TTTTACTATA ACTCTTTTTA TAGATAAGCT ATTGATTATC TCAACTATAA TAATGTTAAG	1680
TnAA	1684

(2) INFORMATION FOR SEQ ID NO: 259:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 970 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 259:

AGGAGTGGAG AnATATGAAG ACACAAATTT TCACATTATT GAAAATCGTT GCTGAGATTA	60
TTATTATTTT GCCATTTCTA ACTAATCTAT AAGTTCTTTA TATTGCTGAA AACGCAATTC	120
AAAAGGGCT ATTAATTGTG GATTTTCTAA TACCTGCAGA GATTGGATAA AGCGTTCAAT	180
CTCTTTTGA TGCTTCCCT TGTGTTGAAG AAAGACACTC ATCTTCTTTA AAAATTGCCA	240
CGATACTTTT TCAAAAACAT CATACGGTCG TAACATCCTC TCCAACTCGG CTTGGAAGAT	300
TGGGATGTAG GAGAAAAGTT TTCGCTCCAT GAGTTCTGAT AAGATATTTA AGAGTCCTTG	360
CTTCATATAC AATCGATTGT GACTAACTC TTTAAATTCT TTGGATTTT CGAGTAAGGA	420
GGTTGATAAA AAAATCAGAT CTTGATTGCT CAAGAAGGGC ATGGTATTGC AAAAGAGATA	480
GAGTTCAAAC CAGGTCCAAG ACTCGATAGC ATAGAGATAG GTGGTCAAAA ACTCGCTATC	540
CTCCTCTGCT AGTGGGTAGC TTTTATTTAG TGAATGGATG GCATCTTTAA TCACGATGGC	600
ATTCAAACGA CGATAGGTCT GCGCCATCTG TTCTTGATCG ACTTCCTCCA ATAGCTGCTC	660
TAAAGCAGCT ATATCCTGAT GGGCAAAGCG ATTCACAACC TTTGACCGA TTCGCATATG	720
TGGAGATTCT TGATAGTTGT TGAGCTTGTC CCCAACTCA TCAAAGGTCA CATTTATACC	780
TTGGATAGCT AGAATCAACT TATCCGCAGA CAGCATAGAC TGCCCTAGTT CAAACTTGGA	840
CAACTGAGAA GCTGTTAGAC CCTCACAAGC CACATCTGAC TGCTTGAGCT TTCTCGCCAA	900
ACGTAATTCC TTGTAAAATT CCCCAGTTC CATCTCTCA ATCATCTGAC CACCTCCTAG	960
CTTTTGCAGG	970

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(2) INFORMATION FOR SEQ ID NO: 260:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2996 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 260:

GTTGACCACG GGTAAACTA CCCTAACTGC AGCTATCACA ACTGTTTGG CACGTCGCTT	60
GCCTTCATCA GTTAACCAAC CTAAAGACTA TGCCTCTATC GATGCTGCTC CAGAAGAACG	120
CGAACGCGGT ATCACTATCA ACACGCGCA CGTTGAGTAC GAAACTGAAA AACGTCCTA	180
CGCTCACATC GACGCTCCAG GACACGCGGA CTACGTAAA AACATGATCA CTGGTGCTGC	240
TCAAATGGAC GGAGCTATCC TTGTAGTAGC TTCAACTGAC GGACCAATGC CACAACTCG	300
TGAGCACATC CTTCTTTCAC GTCAGGTTGG TGTAAACAC CTTATCGTCT TCATGAACAA	360
AGTTGACTTG GTTGACGACG AAGAATTGCT TGAATTGGTT GAAATGGAAA TCCGTGACCT	420
ATTGTGAGAA TACGACTTCC CAGGTGACGA TCTTCCAGTT ATCCAAGGTT CAGCACTTAA	480
AGCTCTTGAA GGTGACTCTA AATACGAAGA CATCGTTATG GAATTGATGA ACACAGTTGA	540
TGAGTATATC CCAGAACCAG AACGTGACAC TGACAAACCA TTGCTTCTTC CAGTCGAGGA	600
CGTATTCTCA ATCACTGGAC GTGGTACAGT TGCTTCAGGA CGTATCGACC GTGGTATCGT	660
TAAAGTCAAC GACGAAATCG AAATCGTTGG TATCAAAGAA GAAACTCAAA AAGCAGTTGT	720
TACTGGTGTT GAAATGTTCC GTAACAACCT TGACGAAGGT CTTGCTGGAG ATAACGTAGG	780
TGTCCTTCTT CGTGGTGTTT AACGTGATGA AATCGAACGT GGACAAGTTA TCGCTAAACC	840
AGGTTCATC AACCACACA CTAAATTCAA AGGTGAAGTC TACATCCTTA CTAAAGAAGA	900
AGGTGGACGT CACACTCCAT TCTTCAACAA CTACCGTCCA CAATTCTACT TCCGTACTAC	960
TGACGTTACA GGTTCATCG AACTTCCAGC AGGTACTGAA ATGGTAATGC CTGGTGATAA	1020
CGTGACAATC GACGTTGAGT TGATTCAACC AATCGCCGTA GAACAAGTA CTACATTCTC	1080
TATCCGTGAG GGTGGACGTA CTGTTGGTTC AGGTATGGTT ACAGAAATCG AAGCTTAATT	1140
CGATTTAGTT CCCAGAAGAA CAATTATTTA AGTTAGACAC TAAAAGAATC TTGCTTGGCA	1200
AGGTCTTTT TTTAGATATT GAACTAATAC TCAATGAAAA TCAAAGAGCA AACTATAATA	1260
TATTGAAACT AGAATAGTAC ACATCTACTT CTAACACATT GTTAGAAATC GATTTGACTG	1320
TCCTGATCGA TTTGCTTGT TCTTATTTCA TTTTACTATA GAAAGTTAGC TACAGACTGC	1380
TCAAAACATT GTTTTAGGT TGTAGATAGA ACTGACGAAG TCAGTAACAT CTATACGACA	1440

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AGGCGAAGCT GACGCGGTTT GAAGAGATTT TCGAAGAGTA TAATACTAGA CTAAATCAA	1500
AAAGCATTAT ACAATAGTAA TATGAAATCA ATTAAAGAAG AAATCCAAAC CATCAAAACA	1560
CTTTTAAAAG ACTCTCGTAC AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTCGT	1620
CTGATGGGCA AATCTTATAA AGAGATTATA GAACTTTTAT AGTGGTTTGA AATAAGATGT	1680
GAACAACTCT ATCAGGAAAG TCAAATAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA	1740
CTGTTATAGA TTCAATACAC TTTAGACTGT AATCAAACAA CGATTGGCG AAATGTAAAA	1800
AATATGAGGA GTTCGGACTC GACTCTCTCC TTCAAGAAAC ACGTGGTGGT CGTAACCATG	1860
CTTATATGAC GGTGAGCAA GAGAAAGTCT TTCTTGCCCG CCATTGAAG GCTACAGAGG	1920
CAGGAGAATT TGTTACAATT GATGCCTTAT TTCAGGCTTA TAAAAGGAG TTAGGTCGTT	1980
CCTACACACG TGATGCCTTC TATCAACTGT TGAAGCGCCA TGTTGGCGA AATATTACGC	2040
CACGTCCAGA ACATCCTAAG AAAGCAGATG CTCAAACCAT TGTGCGCTCT AAAAATAAAG	2100
TCTCAATTCA AGAAGACAAG TGAAGTCAC CCCAAAAGTT AGACAGAAAA AATCTAACTT	2160
TTGGGGTGTT TTTATTATGA AATTAACCTA TGATGATAAA GTTCAGATCT ATGAAGCTAG	2220
AAAACAAGGA TATAGCTTAG AGAAGCTTTC AAATAAATTT GGGATAAACA ATTCTAATCT	2280
TAGGTACATG ATTAAATTGA TTGATCGTTA CGGAATAGAG TTCGTCAAAA AAGGAAAAAA	2340
TCGTTACTAT TCTCCTGATT TAAAACAAGA AATGATTCAT AAAGTCTGAC ATGAAGGCTG	2400
GACTAAAGAT AGAGTTTCTC TTGAATACTG TCTCCCAAGT CGTACGATAC TTCTTAACTG	2460
GCTAGCACAA TACAGGAAAA ACGGGTATAC TATTGTTGAG AAAACAAGAG GGAGAGTACC	2520
TGAGAGCGGA GAATGCCATC CTAAAAAAGT TAAGAGAACT CCGATTGAAG GAGGAAAAAG	2580
AGAAAGAAGA AAGACAGAAA TTATTCAAGA ATTAATGACT GAGTTTTCGT TAGATATTCT	2640
TCTAAAAGCC ATTAACTAG CTCGTTTGAC CTACTACTAT CACTTGAAAC AGCTAGATAA	2700
ACCAGATAAG GACCAAGAGC TTAAAGCTGA AATTCAATCC ATTTTATCG AACACAAGGG	2760
AAATTATGCT TATCGTCGGA TTTATTTAGA ACTAAGAAAT CGTGGTTATC TGGTAAATCA	2820
TAAAAGAGTT CAAGGCTTGA TAAAAGTACT CAATTTACAA GCTAAATGC GACAGAAACG	2880
AAAATATTCT TCTCATAAAG GAGACGTTGG CAAGAAGGCA GAGAATCTCA TTCAAGGACA	2940
ATTTGAAGGC TCTAAACAA TGGAAAAGTG CTACACAGAT GTGACAGAAT TTGCCG	2996

(2) INFORMATION FOR SEQ ID NO: 261:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 837 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 261:

CTTATCAACT CCCGACATGG CTCTCAGACC AATCCAAATC CCTAAAAAA TCAGAACAAG	60
GATGGTGGTC AAGATCAAAC TCTCGAAATA TAAAGAAAAT AGTTGCAGTA GCATGATTTC	120
TCTCATTTCT ATCTTTTTTA AAGAGTAAAC TCAGCTAGTC CAACTAACTG AGTTTTCCTT	180
TATCTATTAT ATCAATATA AGTCCGTTTG TAACTAGCGA AGAATCTTT TGTCCGCTCT	240
TCTTTAGGGG TGTGGATAAT CTCATCCGGA GTTCCAGACT CGATGATTTT CCCCTTATCT	300
AAGAAGAGAA TTTTATCCGC AACTTGGGCT ACAAAGGACA TGTCATGACT GACCAAAATC	360
ATGGTCTGAC CTGACTTAGC AGCATCTGCA ATAGACTTTT CTACTTCACC GACCAATTCT	420
GGGTCAAGGG CTGAAGTTGG TTCGTCTAAG AGCAAAACAT CTGGTTTCAT AGCAAGCGCA	480
CGCGCTAGGG CAACCCGTTG CTTCTGTCCA CCTGATAAAT GGCGAGGATA ATGGTTTTCA	540
CGGTCCGAAA GCCCAACCTT AGCCAACCTCT TCCTTGCGA TCTTAGTCGC TTCTTGGTCA	600
GATAATTTCT TGACAACAAC CAAGCCTTCT TTCACATTAT CAAGTGCTGT TCGGCGTTCA	660
AACAAATTAA ACTGTTGGAA AACCATAGAC AACTTACGAC GTAGGGCAAG GATTTCTTCT	720
TGAGTGATTT TAGAAAAATC AACTGAAAAA CCATCAATCT GAATAGAGCC ACTGTCAGGT	780
GTTTCTAGAT AATTGAGACT GCGAGAAAGG TTGATTTTCA GCTCTGAAGA CCAATCA	837

(2) INFORMATION FOR SEQ ID NO: 262:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 868 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 262:

CCGAACAAAA TGGGCTAATT AGATTATAGT AAGAAAGGTA AGTTAAAAAT GAGAATTGCA	60
ATTGGATGTG ACCACATCGT AACTGATGAA AAAATGGCGG TTTCAGAAAT TTTGAAATCA	120
AAAGGATATG AAGTCATTGA CTTTGGTACC TATGACCATA CACGGACTCA CTACCCAATC	180
TTTGGTAAAA AAGTAGGGGA AGCTGTAAC AGCGGTCAAG CTGATCTTGG AGTATGTATC	240
TGTGGTACTG GTGTTGGTAT CAACAACGCT GTAAATAAAG TTCCAGGTGT TCGTTCTGCC	300
TTGGTTCGTG ATATGACAAC AGCCCTTTAT GCTAAAGAAC AATTGAACGC TAACGTTATT	360
GGTTTGGTG GTAAATTAC TGGTGAATTG CTTATGTGTG ATATCATCGA AGCTTTCATC	420

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CATGCTGAAT ACAAACCAAC TGAAGAAAAC AAAAAATTGA TTGCGAAAAT TGAACATGTT	480
GAAAGTCACA ATGCTCAACA AACAGACGCA AACTTCTTTA CAGAATTCCT TGAGAAATGG	540
GATCGTGGAG AATACCACGA CTAAGAGGTG ACCTATGATT TTAACAGTCA CAATGAACCC	600
ATCCATCGAT ATTCCTATC CCTTGGATGA GTTGAAGATT GATACTGTCA ATCGTGTGGT	660
GGATGTAACC AAAACGGCTG GTGGTAAGGG ACTCAATGTT ACCCGAGTAC TTTCAGAATT	720
TGGCGATTCT GTTCTTGCTA CTGGTTTAGT GGGTGGCAAA CTTGGTGAGT TTTTGGTTGA	780
ACATATCGAT AATCAAGTAA AGAAAGATTT CTTCTCAATT AAGGGAGAAA CTCGTAAC TG	840
TATCGCTATT CTCCACGGAG ACAACCAA	868

(2) INFORMATION FOR SEQ ID NO: 263:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3744 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 263:

CCGTTCAAAG TCTTCATAAG ACTCGAAAGT CACAGTTCTT TCGTTCTTGC TGGCATCTAT	60
ATAGGTAATT TCAATCATGT TTAAACTCC TTTGTTTAAT GCTAACTTTA TTTTACTCCT	120
TATAAAAGAG AATGTCAAGA AAAATGATTG CGCACGCAAC TTTTTTTAAA ATCATCTTAA	180
ATCAAGAAAT CCAAACCTGC TTCCAAGCTT TCTTCGACAG TCTTTTGTAG CGAGGCCAGT	240
GTCTTTTGCC CATCATTTGT CAGGCAGATA AACTAGAGC GTCTATCTTG ATGGCAACAC	300
ATGCGACTGA GTAGACCGCA ATTTTGTAGT TCCAAGCGAG CCACCATCCT AGAAACTGCC	360
CTCGGGCTCA GATGAAGCTT ATCTGGCAGG TCAATCTGGC GTAGAGATTT TTCTTCAGCC	420
AAGTCCAGAT AGTAGAGCAG GTAGAACTCT TTCAAGTCA GACTTTGCTC GCTCTGTTGG	480
GCAATGGTCT CTCCAAGAG ACTTTCAATT TCTTTCTGAC GCCGATTGAA GTCAAACCAT	540
TTTTCCAAAT AGGTCATAGT GTCTCCTTTC TTTTGTAGT CATAAATAGA AGAAAGTCCA	600
TTAACGGGCA GTCTCTGCGT CACAAGATGA TTGCGCATGC AATAATTATA CTACTTTTCA	660
AGAATGCTGG CAAGCTCTGT TTTTGTAGT TTTTATTTTT GTGTGAATAA TGGGGGAATC	720
CTATTGTTTC AATTTCTAAC TCCTTATCAC ATTCGAATTC AGATTTTATT TCATTTCTCT	780
ATCTATAGTT GCTTAGTTTA AAATAAGCAT GGTCTAATAA AGCTATGCAT ATAGTACTGA	840
TTTTAAACAA GGAGCATTAG ATTCATTAA AGGAGGGCAC AGACATGTCG AGGCGGCCAA	900

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AGTTTTTGAT GTCGGCGTCA GAACTCTCTT CACGTGGGAA AAGAAAGACG TAAACAAGGG	960
AACTTAGAGC GGAAAAAGCG AGTCGTCAAA AAGCGTAAGA TCCCTTTAGA AGAATTGAAA	1020
GCCTTTGTAG AGGCTCATCC AGACGCTTTT TTACGGGAAA TTGCGGCCCG TTTTGATTGT	1080
GCTTTGCCCT CCGTATGGGC AGTTTAAAG CAGATTAAGG TCATTTTAAA AAAGACGACC	1140
AGTTTTAGGG AACAAAAGCC TGAGAAAGTT TCTGAGTTTC TTGATATTTT GGATAACCTA	1200
AAAGATTTAC CAGTCCTATA TATTGACGAA ACGGGAATCG ACCGCTACCT CTATCGTCCT	1260
TATGCAGGGG CTCCTAGAGG GGAGAAAGTC TATGGCAAGA TTAGCGGACG GCGTTTTGAG	1320
CGGACTAATG AGGTGGAGCA AAAACTCAAT GGTAGTTTTC TAATCAGATA TATTGATTCA	1380
CAAAATTAGAG AATGAAAGAA TAATTATGCA TAAAAATAGG AATATAAACC AAAAATTAGC	1440
TGATTTATAC TCATTTGCGT GTCTTTATAA AAAACTTATC TTATAATATA TATATATATA	1500
TATACAAAAT AGTAAATGC TTTTTTTTTT TAGCAAAAAT ACCTCAAGTT TCTTGCTATT	1560
TTGGGTTCCC TATTCTATAA TTATAGTATG GTAATTTATT TATATCCATA CATGAAAATA	1620
ATACTCGAAA GGAAATTTCA AAATATTTTT TAGACGTGAG AAGGGTGAAT ATAGAGAAAC	1680
AGACCGAGTA ACTCGGTTCA AATTAATCAA ATCAGGGAAG CATTTGGCTAC GGGCCTCGAC	1740
TTCTCTTTTT GGCTTGTTA AGGTCTTGGC AGGTGGTGTG GATACTACTC AGGTCATGAC	1800
CGAAACGGTA GAAGATAAAG TAAGTCATTC AATTACTGGG CTTGATATCC TCAAGGGGAT	1860
AGTTGCTGCG GGAGCTGTCA TAAGTGGAAC CGTTGCAACT CAAACGAAGG TATTTACAAA	1920
TGAGTCAGCA GACTTTGAAA AAAGTGTAGA GAAAACGGAT GCTTTGGCAA CAAATGATAC	1980
AGTAGTTCTA GGTACGATAT CTACAAGTAA TTCAGCGAGT TCAACTAGTT TGTCAGCTTC	2040
AGAGTCGGCA AGTACATCTG CATCTGAGTC AGCCTCAACC AGCGCTTCGA CCTCAGCAAG	2100
TACAAGTGCA TCAGAATCAG CAAGTACATC GGCTTCGACA AGTATTTCTG CATCATCTAC	2160
TGTGGTAGGT TCACAAACAG CTGCCGCTAC AGAAGCAACT GCTAAGAAGG TCGAAGAAGA	2220
TCGTAAGAAA CCAGCTAGTG ATTATGTAGC ATCAGTTACA AATGTCAATC TCCAATCTTA	2280
TGCTAAGCGA CGCAAGCGTT CAGTGGATTC CATCGAGCAA TTGCTGGCTT CTATAAAAAA	2340
TGCTGCTGTT TTTTCTGGCA ATACGATTGT AAATGGCGCC CCTGCAATTA ATGCAAGTCT	2400
AAACATTGCT AAAAGTGAGA CAAAAGTTTA TACAGGTGAA GGTGTAGATT CGGTATATCG	2460
TGTTCCAATT TACTATAAAT TGAAAGTGAC AAATGATGGT TCAAAATTGA CCTTTACCTA	2520
TACGGTTACG TATGTGAATC CTAAAACAAA TGATCTTGGT AATATATCAA GTATGCGTCC	2580
TGGATATTCT ATCTATAATT CAGGTACTTC AACACAAACA ATGTTAACCC TTGGCAGTGA	2640
TCTTGGTAAA CCTTCAGGTG TAAAGAACTA CATTACTGAC AAAAATGGTA GACAGGTTCT	2700

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ATCCTATAAT ACATCTACAA TGACGACGCA GGGTAGTGGG TATACTTGGG GAAATGGTGC	2760
CCAAATGAAT GGTTCCTTTG CTAAGAAAGG ATATGGATTA ACATCATCTT GGACTGTACC	2820
AATTACTGGA ACGGATACAT CCTTTACATT TACCCCTTAC GCTGCTAGAA CAGATAGAAT	2880
TGGAATTAAC TACTTCAATG GTGGAGGAAA GGTAGTTGAA TCTAGCACGA CCAGTCAGTC	2940
ACTTTCACAG TCTAAGTCAC TCTCAGTAAG TGCTAGTCAA AGCGCCTCAG CTTCAGCATC	3000
AACAAGTGGC TCGGCTTCAG CATCAACCAG TGCCTCGGCT TCAGCGTCAA CCAGTGCCTC	3060
AGCTTCAGCA AGTACCAGTG CTTCAGTCTC AGCATCAACA AGTGCTTCAG CCTCAGCATC	3120
GACAAGTGCC TCGGCTTCAG CAAGCACATC AGCATCTGAA TCAGCGTCAA CCAGTGCTTC	3180
GGCTTCAGCA AGTACCAGTG CTTCAGCTTC AGCATCAACC AGCGCCTCGG CCTCAGCAAG	3240
CACCTCAGCT TCTGAATCGG CCTCAACCAG CGCCTCGGCC TCAGCAAGCA CCTCAGCTTC	3300
TGAATCGGCC TCAACCAGCG CCTCAGCCTC AGCATCAACG AGTGCTTCGG CTTCAGCAAG	3360
CACAAGCGCC TCGGGTTCAG CATCAACGAG TACGTCAGCT TCAGCGTCAA CCAGTGCTTC	3420
AGCCTCAGCA TCAACAAGTG CGTCAGCTCA GCAAGTATCT CAGCGTCTGA ATCGGCATCA	3480
ACGAGTGGCT CTGAGTCAGC ATCAACGAGT ACGTCAGCCT CAGCAAGCAC CTCAGCTTCT	3540
GAATCGGCCT CAACCAAGTG GTCACTCAG CATCGACAAG CGCCTCAGCT TCAGCAAGTA	3600
CCAGTGCTTC AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAGTGCA TCTGAATCGG	3660
CATCAACCAG TCGGTGAGCC TCAGCAAGTA CTAGTGCATC GGCTTCAGCA TCAACCAGTG	3720
CCTCGGCTTC AGCGTCAAAC AGTG	3744

(2) INFORMATION FOR SEQ ID NO: 264:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 795 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 264:

CGATAAAGAG GCCTTGAGTA ATCTCAATTT GCAGATTGAA AATGGAGAGA TTATGGGCTT	60
GATTGGTCAT AATGGGGCTG GAAAATCGAC CACTATAAAA TCCCTAGTCA GTATCATTTT	120
ACCCAGCAGT GGTCGTATTT TGGTAGACGG TCAGGAGTTA TCGGAAAATC GCTTGGCTAT	180
TAAACGAAAG ATTGGCTACG TAGCAGACTC GCCTGACTTA TTTTACGCT TAACGGCCAA	240
TGAATTTTGG GAATTGATCG CCTCATCCTA TGATCTGAGT AGATCTGACT TGGAGGCTAG	300

1292

TCTAGCTAGG CTATTGAACG TTTTGTGATT TGCTGAAAAT CGCTATCAGG TTATTGAAAC	360
TCTTTCTCAC GGAATGCGTC AGAAAGTCTT TGTCATCGGA GCACTCTTGT CTGATCCCGA	420
TATTTGGGTC TTGGATGAAC CCTTGACTGG TTTGGATCCC CAGGCTGCCT TTGATTTGAA	480
ACAGATGATG AAGGAACATG CACAAAAAGG GAAGACAGTC TTGTTTTCAA CTCATGTCCT	540
AGAGGTGGCA GAGCAAGTCT GTGATCGGAT TGCCATTTTG AAAAAGGGGC ATTTGATTTA	600
TTGTGGTAGT GTAGAGGACT TGAGAAAAGA TTACCCAGAC CAGTCTTTGG AAAGTATCTA	660
CCTTAGTCTT GCTGGTAGAA AAGAGGAGGT TCGGATGCG TCTCAAGTC ATTAATAAAT	720
TAGTTGATAT CAATATCCTT TATTCATCTC AAGAAGCTAA TCTGGCTAAT CTACGAAAGA	780
AGCAGGCTAA GAATC	795

(2) INFORMATION FOR SEQ ID NO: 265:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2231 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 265:

TGGTAATGTG CTTGGCAGCw TCCTTGACAC TGCTACTACC ATTTCCCATATA GCGACCGACA	60
TACCAACGCC AGCCAGCATT TCAAGATCAT TATCTGAGTC ACCAAAAGCC ATGACTTGGT	120
TGAGGTCAA GCCATATCTT TTCCCAACTC GCGAATGCC TTCTAATTTA GAATTTCCCT	180
GATTGATGAC ATCCGATGCA AAAGGATTGC TACGTGTCAA TTTCAAGTCT TCAAAATCAG	240
CTGCCGCCTT CTCAGATTCT TCTGGTGTC TCAGCATCAA AACTTGGTAG ATAGGCTGAT	300
TCATCAGGTG AAGCAGGTCC TCTTCCTTTT GGGGAACAAC CTGCTGACC ATGCGATTAA	360
AAGACTGACT CACCGTCCGA GTTAAAACAG AGGGAACGAA GCGACTAATT CGTTGGGAAA	420
AAGAACCAG ACCAAAGGAC ATGATTTTAG AACCAACAT GGCATCCTTG GTCCCTAGAG	480
CAATCTCCGT GCCCTCTTTT TTAGCATAGC TAATTAGATG GCGCAAATGT AACTTGGAAA	540
TAGGGCTCGT GAACAAGACT CTGTCTTTAC TAAAGATATA CTGGCCATTA TAGGTTACCG	600
CAAAATCCAG ATCCAAATCG TCCATCAATT CCTTAACAAA AAAAGGTCCT CGCCCTGTCG	660
CTACGCCAAC TAGTACCCCT TGTCTTTGA CAATCTTAAT CGCATCCTTA GTGGATTTC	720
AAACTCTTT GCGATTGTTG ACCAAGGTTT CATCGATATC AAAAAAACA GCTTTGACTT	780
CCATCCTATC CCAATCTCCC CTTTGTGAT ACAATGATTA TACCACATTT CAGAAAGAGT	840
GAGTAAATCA TGCCTAAGAA AATCCTTGTT TTACATACGG GTGGAACAT TTCCATGCAG	900

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GCCGATGCTT CTGGCGCTGT TGTGACGAGT TCAGATAATC CCATGAACCA TGTGTCCAAC	960
CCACTTGAAG GAATCCAAGT CCACGCCTTG GACTTTTTTA ACCTTCCAAG TCCCCATATC	1020
AAACCCAAAC ATATGCTGGT CCTCTACCAG AAAATTAAAG AGGAAGCAGA TAACTACGAT	1080
GGAGTGGTGA TCACACACGG AACCGATACT TTAGAGGAAA CAGCCTATTT CCTTGATACC	1140
ATGGAAGTTC CCCATATGCC TATCGTTCTA ACAGGAGCCA TGCGTACTCC AATGAGCTCG	1200
GTAGTGATGG TGTTTATAAT TACCTAAGTG CTTTACGAGT GGCCAGCGAT GACAGGGCTG	1260
CTGACAAAGG AGTTTGGTC GTTATGAACG ATGAAATCCA CGCTGCCAAG TATGTCACCA	1320
AAACACATAC GACTAATGTC AGCACCTTCC AGACTCCAAC ACATGGCCCC CTTGGTCTCA	1380
TCATGAAACA GGAAATCCTC TACTTCAAAA CAGCTGAACC TCGTGTTCGC TTTGACCTTG	1440
ATCACATACA AGGTTTAGTC CCTATCATCT CGGCTTATGC TGGTATGACA GATGAGCTGA	1500
TTGATATGCT GGATTTAGAA CACTTGGACG GTTTGATTAT CCAAGCCTTC GGAGCTGGTA	1560
ATATTCCCAA AGAAACGGCT CAAAAATTAG AAAGCCTTCT GCAAAAAGGA ATTCCAGTCG	1620
CTCTGGTATC ACGATGCTTT AACGGTATTG CCGAGCCTGT TTATGCATAC CAGGGTGGGG	1680
GCGTACAGTT GCAAAAAGCA GGCCTTTTCT TTGTTAAAGA ACTCAACGCC CAAAAAGCTC	1740
GCTTGAAACT CCTCATCGCC CTCAATGCCG GACTAACAGG ACAGGCTTTG AAAGACTATA	1800
TGGAAGGCTA ATACTCTTCG AAAATCTCTG CAAACCACGT CACGTCGCCT TACCGTATGT	1860
ATGGTACTGA CTTGCTCAGT TTCATCTACA ACCTCAAAA CATGTTTGA GCTGACTTCG	1920
TCAGTTCTAT CTACAACCTC AAAAACATGT TTTGAGCTGA CTTGCTCAGT TCTATCTACA	1980
ACCTCAAAA CATGTTTGA GCTGACTTCG TCAGTTCTAT CTACAACCTC AAAAACATGT	2040
TTTGAGCTGA CTTGCTCAGT TCTATCTACA ACCTCAAAA CATGTTTGA GCTGACTTCG	2100
TCAGTTCTAT CTACAACCTC AAAAACATGT TTTGAGCTGA CTTGCTCAGT TCTATCTACA	2160
ACCTCAAAA CATGTTTGA GCTGACTTCG TTAGTTTCAT CTACAACCTC AAAAACATGT	2220
TTTGAGCTGA C	2231

(2) INFORMATION FOR SEQ ID NO: 266:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1310 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 266:

1294

GAGTCAAAGG CTCCGAGGTT GACTTTTTAC AAGGGGACAG GTGAATATTA TCTAGACCTG	60
TCAGAAATTC TCTTCTTTGA AACAGAAGGG AGCAAGATCT ACGCTCATAA CCAGAAGGAA	120
GCTTATGAGG TTCGCCTCAA GCTCTATGAG TTGGAGTCTA TCTTGCCTCG CTATTTTAAT	180
CGAGTTTCCA AGTCAACGAT CGCAAACATC CGTCAGATT ACTCAGTGA CAAGTCCTTT	240
TCAGGAACGG GCACCATTTT CTTTTATCAG ACGCACAAAG AGGTTCATGT CTCACGGCAT	300
TACCAATCCC TCCTAAAAGA AAATCTAAGA AACATGAGGT AAAAAACATG AAAAAGAAAG	360
CATTTGGTAT TGTTTTATTG GTTTTAGCAG CTGGGATCTT GCTGCAAGGG AATTTTGAA	420
TTCTTCTTTT GGATGGTAAA ATATGGCCTT TACTAGGTAT TGTTTTTTTT GCTTATAAGT	480
CCATTGAGTC CATCTTAGA CGTCATCTCA CTTGCGCAGT TTTTACAGGT TTAGTGGCGC	540
TCATCATTCG AAATTACGCT TATGACTTGT TACCAGTTAC CAATCATTCT CTTATTTGGG	600
CTAGCATCTT GGTGGTACTT GGTGTTGGTT ATCTGACGCA TTCAAGTAAG TTCTGGAATG	660
AAAAAAATG GTGGTACAAT GGGAAAAAAA CAGTCGTCAC GGATAAGGAA GTCGCTTTTG	720
GTAGCGGGAC CTTCTATAAG CAAGATCAAG ATCTCGTAGA TGACCAAGTG GAAGTCGCTT	780
TTGGGGATGC TAAATCTAC TATGATAATG CAGAGATGCT AGGTGATTTT GCAACTTTAA	840
ATATTGAAGT GGCCTTCGGG AATGCAACCG TCTATGTTCC ACAACACTGG CGTGTAGATT	900
TGAAAGTAGA AACCTCCTTT GGTGCAGCTA AGGCTGACGC TCCTGTAGCC CCAACCAGCA	960
AAACCTTGAT TATCCGTGGA GATGTGGCTT TTGGGAAGTT GGAAATTGTC TACGTTAAAT	1020
AAAAAATCT TCACCTCAAC CATCAAAATA GACGTACTAA GAGTAGGAAA TTGATGCCTT	1080
GCTCTGATTT CAGTTCTATG GTTGTAGAC TTTAAAAAAT GAAATGCTGC CTTTAAAAGT	1140
TGTATATTTT TCGATATTTT GGCTTTTACG TTTGATGTAT CTATGTACTA CAGCGTAGAT	1200
GATGTAGTGT CAAATGCTTT TAAAAACGG ATGATATTGG ACAGTTTTTT TGCCTTTAAT	1260
TGCTCAGGAA CCATGAAAGT CAGTACCTGG GTTTATGACA AGGGAGAATG	1310

(2) INFORMATION FOR SEQ ID NO: 267:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5922 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 267:

ACTCTGATTT GATTGGAACG ACAGTCGGTG CCATTGCAGT TACTTCAAAC GTAACGACTT	60
ATGTTGAGTC TGCTGCTGGT ATCGGTGCAG GTGGACGTAC TGGTTTGACA GCCTTGTTG	120

1295

TAGCTATCTG TTTGCGATT TCAAGCTTCT TTAGCCCACT TCTAGCGATC GTACCAACAG	180
CGGCTACAGC TCCAATCTTG ATTATCGTTG GGATTATGAT GCTTGGTAGC TTGAAAAATA	240
TCCATTGGGA TGATATGTCT GAAGCAGTTC CTGCCTTCTT CACATCTATC TTTATGGGAT	300
TCAGCTACTC TATCACTCAA GGGATTGCAG TTGGTTTCTT GACTTACACT TTGACTAAGC	360
TTGTTAAAGG TCAAGTTAAA GATGTTTCATG TCATGATTTG GATTTTGGAT GCCTTGTTTA	420
TCCTTAACTA CATCAGCATG GCCTTATAAT AGAATGACCC AGGGGGATT CCCCCCTTTT	480
TTAATACAaG GAGATAGGTG ATGAAAGAGA AAAATATGTG GAAAGAATTG TTGAATCGTG	540
CAGGCTGGAT TTTGGTCTTT TTAAGTCCCG TCCTTTTATA TCAGGTTCCC CTAGTGGTTA	600
CCTCTATTTT GACTTTAAAA GAAGTAGCCC TGCTACAGTC AGGGCTGATA GTTGCTGGCC	660
TTTCAATTGT GGTCTCGCT CTATTTATTA TGGGAGCTCG TAAACCAAG TTAGCTAGTT	720
TTAATTTTTC TTTTTTATAG GCTAAAGATT TGGCACGTTT GGGCTTGAGT TATCTAGTTA	780
TTGTCGGGTC AAATATACTT GGTTCATTTT TATTGCAACT GTCAAATGAG ACGACAACAG	840
CTAACCAGTC TCAGATTAAT GATATGGTTC AAAATAGTTC GTTGATTTC AGTTTCTTCT	900
TGCTAGCCTT GCTTGCTCCG ATTTGTGAGG AAATCTGTG TCCTGGGATT GTTCCTAAAA	960
AGATTTTCCG AGGCAAGGAG AACTTGGGAT TTGTAGTCGG TACGATTGTG TTTGCTTTAT	1020
TGCATCAACC AAGTAATTTA CCTTCTTTAT TGATTTATGG AGGTATGTCG ACAGTTCTAT	1080
CTTGACAGC CTACAAGACC CAACGTTTGG AAATGTCGAT CTTGCTTCAC ATGATTGTTA	1140
ATGGGATGTC TTTCTGTTG TTGGCTCTTG TGGTGATTAT GAGTCGGACA TTAGGAATTT	1200
CTGTTTAAAA GTTTTATGT AGGAACCGAC CTCTTCTAC CAGGGAAGA TGAATGCAAT	1260
CGTGCCATC TTTTCTTTT TATGGTAAAA TAGAAAAATA ATATGATGAA AATCCTTGAG	1320
GGAGTGACCG ATATGTCAAG TAAAGCCAAT CATGCAAAGA CAGTTATTTG CGGAATTATC	1380
AATGTAACCC CAGACTCCTT TTCGGACGGT GGTCAATTTT TTGCTCTTGA GCAGGCGCTC	1440
CAGCAGGCTC GTAAATTGAT AGCAGAAGGA GCCAGTATGC TAGATATCGG CGGAGAATCG	1500
ACTCGGCCGG GAAGTAGCTA TGTGAGATA GAAGAGGAAA TCCAGCGTGT TGTCCAGTG	1560
ATCAAAGCGA TTCGCAAGGA AAGTGATGTC CTCATCTCTA TTGATACTTG GAAGAGTCAA	1620
GTAGCAGAGG CTGCTTTGGC TGCTGGTGCC GATCTAGTCA ATGATATCAC TGGTCTTATG	1680
GGTGATGAGA AAATGGCTTA TGTGGTAGCT GAAGCGAGAG CGAAAGTGGT CATCATGTTT	1740
AACCCAGTTA TGGCTCGACC TCAGCATCCT AGTTCGCTTA TCTTCCCTCA TTTTGGTTTT	1800
GGTCAAACCT TTACAGAAAA AGAGTTAGCT GACTTTGAAA CATTGCCAAT CGAAGACTTG	1860

1296

ATGGTGGCTT TCTTTGAACG AGCACTAGCG AGAGCGGCAG AAGCTGGTAT TGCACCAGAA	1920
AATATCCTGT TGGATCCAGG AATTGGCTTT GGTCTGACCA AGAAAGAAAA TCTGCTTCTT	1980
TTACGGGACC TGGATAAACT ACATCAGAAG GGCTATCCAA TCTTTCTCGG AGTGTGCGGC	2040
AAGCgATTTG TCATCAATAT CCTAGAGGAG AATGGTTTGG AAGTCAATCC TGAGACAGAG	2100
CTTGGTTTCC GAAATCGGGA CACGGCTTCG GCTCATGTAA CTAGTATCGC TCGGAGACAG	2160
GGTGTAGAAG TGGTGC GCGT GCATGACGTA GCTAGTCACA GGATGGCAGT TGAAATTGCC	2220
TCTGCCATTC GTCTGGCTGA TGAAGCGGAA AATTTAGATT TAAAACAATA TAAATAAGAT	2280
GAAAGAAATT GAAACAATC AGTGGATTGC TAACTACCGG ACGGATCAAC CGCATTTTGG	2340
CTTGGAACGA ATGGTGGAAC TGTTAGCTTT GCGTGGCAAT CCCCATCTCA AACTCAAGGT	2400
CCTCCATATC GGAGGGACTA ACGGCAAGGG CTCGACTATT GCTTTTTTGA AAAAGATGCT	2460
AGAAAAGCTA GGGTTGAGAG TTGGCGTGT TAGCTCGCCC TATCTCATTC ATTACACAGA	2520
CCAGATTAGC ATCAATGGGG AATCGATCTC AGAAGCGAGG CTAGAAGCTC TCATGGCAGA	2580
CTATCAGTCT TTGCTGGAGG GAGAAGCGGT CGCCAATTTA CAGGGCACAA CCGAGTTTGA	2640
GATTATCACA GCCCTGGCCT ATGACTACTT TGCCTCAGAG CAAGTAGATG TGGCCATCAT	2700
GGAAGTTGGC ATGGGTGGAC TTTTGGATAG TACCAATGTC TGTCAGCCCA TTTTGACAGG	2760
AATTACAAC ATTGGCTTGG ATCATGTGGC TCTACTTGGT GACACCTTGG AGGTCATAGC	2820
AGAGCAGAAG GCAGGTATTA TCAACAAGG GATGCCCTTG GTAACAGGGC GTATTGCTCC	2880
AGAAGCCTTG GCTGTGATTG ACCGCATTGC GGAAGGGAAA GATGCGCCGA GACTTGCCCTA	2940
CGGGACAGAT TATCAGTTTC GTCATCAAGA AAGTGTGGTG ACAGGGGAAG TCTTTGACTA	3000
TACAAGTGCT GTCAGACAAG GTCGCTTCCA GACTAGCCTG CTTGGTTTGT ACCAAATAGA	3060
GAATGCTGGG ATGGCCATAG CTTTACTTGA TACTTTTTGT CAAGAAGATG GTCGAGAGCT	3120
AGCAAGCAAT GATTTTCTTG GTCAAGCCTT GGAAGAAACA AGTTGGCCAG GCGGTTTGA	3180
AATCGTGTCA AGAGATCCCT TGATGATTTT GGATGGAGCC CACAATCCCC ATGCTATCAA	3240
GGCCTTGTG GTAACCTTGC AAGAACGTTT TCGCGATTAT CATAAGGAAA TCCTCTTCAC	3300
TTGTATCAAA ACCAAGGCCT TGGAGGATAT GTTGGACTTG CTGGGAGCCA TGCCAGTTAC	3360
CGAGCTTACT CTAACACATT TTGCGGATAG TCGGGCGACG GATGAAAACG TGCTGAAAGA	3420
GGCAGCTAAG TCTAGAAATC TCAGCTACCA AGATTGGCAT GATTTTCTAG AGCAGAATTT	3480
GACAGATAAA AAAGAAGAGA AACAAACAGT TAGGATTGTC ACAGGTTCCCT TGTATTTCTT	3540
GAGCCAAGTG AGGGCCTATC TGATGGAGAG GAAGAACGAG AATGGATACA CAAAAGATTG	3600
AAGCGGCTGT AAAAATGATT ATCGAGGCTG TAGGAGAGGA CGCTAATCGC GAGGGCTTGC	3660

1297

AGGAAACACC TGCTCGTGTA GCCCGTATGT ATCAAGAGAT TTTTTCAGGT CTGGTCAAA	3720
CAGCAGAGGA ACATTTGTCA AAATCCTTTG AAATTATTGA CGATAATATG GTGGTAGAAA	3780
AGGATATCTT TTTCCATACC ATGTGTGAAC ACCACTTCTT GCCATTTTAT GGTAGAGCGC	3840
ACATTGCCTA CATTCAGAT GGTCTGTGG CAGGCTTGTC TAAGCTAGCC CGTACGGTTG	3900
AAGTTTATTC GAAAAACCA CAAATTCAAG AACGTTTGAA TATCGAAGTG GCCGATGCCT	3960
TGATGGACTA TCTAGGTGCT AAAGGAGCCT TTGTTGTCAT TGAGGCGGAA CATATGTGTA	4020
TGAGTATGCG TGGTGTAGA AAACCAGGCA CTGCAACCTT GACGACAGTA GCTCGTGGTC	4080
TATTTGAAAC AGATAAGGAT CTCCGTGACC AAGCTTATCG TTTAATGGGG CTATAAAAAG	4140
AATCCGCTTC AAGCGGATTT TTCTAGAAAG GAATCATTAT GGATCAACTG CAGATTAAGG	4200
ATTTGGAAT GTTTGCCTAT CATGGTCTTT TCCTAGTGA GAAAGAATTG GGCAGAAAT	4260
TTGTCTTTTC AGCCATCCTA TCCTATGATA TGACCAAGGC AGCTACAGAC TTGGATTAA	4320
CAGCCTCTGT CCATTACGGA GAATTGTGTC AGCAGTGGAC GACTTGGTTT CAGGAAACGA	4380
GTGAAGATTT GATTGAAACG GTAGCCTATA AACTGGTGGA ACGTACCTTT GAGTTTATC	4440
CTCTTGTCCTA AGAAATGAAG TTGGAACCTG AAAAACCTTG GGCACCGGTG CATTTGTCAC	4500
TAGATACTTG CTCGGTAACC ATTCATCGCC GCAAGCAACG AGCCTTTATC GCCCTAGGAA	4560
GCAATATGGG AGATAAACAA GCAAACTTGA AGCAAGCCAT TGACAAACTG CGAGCTCGTG	4620
GCATCCATAT TCTCAAAGAG TCCAGTGTCT TAGCGACGGA GCCTTGGGGT GGAGTGGAGC	4680
AGGATAGCTT TGCCAATCAA GTGGTTGAGG TGGAACCTG GCTACCAGCA CAAGACTTGT	4740
TAGAAACCTT GTTAGCCATT GAGTCAGAGC TGGGACGGT GAGAGAAGTG CATTTGGGAC	4800
CTCGTTTGAT TGATTGGAC TTGCTCTTTG TGGAGGACCA GATCCTTTAT ACAGACGACC	4860
TCATATTGCC TCATCCTTAC ATAGCGGAAC GCCTTTTGT CTTGAGTCT TACAGGAAAT	4920
TGCGCCTCAT TTTATCCATC CGATATTAAA ACAACCGATC CGCAACTTGT ATGATGCTTT	4980
GAAAAATAG AAAAATCTA GTTTTCAGTT ACTTGCAACT GAAGGCTAGA GTTTTATAC	5040
TCTTCGAAAA TCTCTTCAA CCACGTCAGC GTCGCCTTAC CGTACTCAAG TACAGCTTGC	5100
GGCTAGCTTC CTAGTTTGCT CTTTGATTTT CATTGAGTAT TAAATAGGT CATTTCTTC	5160
TGGGAGGAGG ATAGTTTCTC TACCGTCCAT GTCTAAAACC AGTACTCTTG GGGGATAACG	5220
AGGGTCGAAA GGATGGTTAA AGTCAAAATC AATGGCTGTA GGGAGGTGTT GACTTGAAAA	5280
GTGGAAGGTA ATCTTTCCTT GGTATTAAAG CAATTGAAAC TCGAGTTCTT CTTCCAATTC	5340
AAAGACATTT TTTAAGAAAT GGTGATGAT ATACCAAAAA GAGTCAATGA TGTCATCAGG	5400

1298

CAAGCTGGTA ACAATACCAA AACTAGCAGA TCGCATGTGG GTATTGGTAA AAGCCATATC	5460
TCTGTCCCCT TTCTTTTCCC TTATCATACA GCAAATAGGA TTAATAATCA AGAAAAGGTG	5520
ATTTTTTGAA AAGGATTTTA GTTACAGGGA GAAATAGGGA AAAAATTCCT AAAAATCTAC	5580
CGAAGTTAAT AGGTAAATTC CCAAATTAAC TTGATTATAT AACTTTCAGT TACTTTGAGA	5640
AGTTACCGAA AAATATTTT CATATCTATT GACTTTTAGG GGTAATAATT GGTATGATAG	5700
TAGGCGGTAT TGTTTACCCC ATTTGAAAGG CCCCGGAACC TTCCAAATAC TTTTCGATGG	5760
GAAGGAACAC CCATCACCGT AAACAAAAAT CGAACTATAT ATAGGAGAAA TCATGAACAA	5820
AACAACATTT ATGGCTAAAC CAGGCCAAGT TGAACGTAAA TGGTACGTAG TTGACGCAAC	5880
TGATGTACCA CTTGGACGTC TTTCTGCAGT AGTTGCTAGC GT	5922

(2) INFORMATION FOR SEQ ID NO: 268:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1988 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 268:

TAATATCTA CGATGAGCTG TTGTGATTCT CATTAGTTCC CCTTCCCAA GAGGCATAGG	60
GGTGCGCATA ATAGATGTGC TCCTCAGAAA ATATATCAAA CAAGCGATTG AATTCGGTTC	120
CATTATCTGC CGTGATGGAA AGAATCTTGT GTTGTTTTAA GATGAGTTT AGAGCCTGAT	180
TGACCACCTC AGCACTTTTA TTTGGAATCA ATCGGATGAT CTGATGTCTA CTCTTTCGAT	240
CCGTCAAGAC AATCAAGCAG TAGTTTTCG ATCTCGTAAG TAGAACCCTA TCAATCTCAT	300
AATGCCCATT CTCCAAGCGA AGATTGATAG CTTCAGGCCG CTGTTGATG GATTGACCAG	360
CAGGTTTAAA GTTGGTGCTA GCCTGTTTCT TAAGCGCTTT TCCTTTTCTA GGGTAAAGCA	420
AATCCTGCTT GCTTAACCCC AATTTTCCAT GATGAATCCA ATAGTAAATG GTTGAAATTC	480
CCACGTTAAC CCCTTTAGCC ATAACCATCA TTTCAGGCGA AAATTTTGG TTATGATAGT	540
GGAGAATCTT TTCCTTAGT TCCTTGCTCA AGCTTGATTT CTTGACCGAG CGCTTGGAT	600
TGTTTTCATA AGACTGTTGA GCGTAGTCGG CAGAATAAAC CTCTTTGAAG CGCCCTTTTC	660
CAAGACATTG TCGGACTGTC CCACGCTTGA TTTCAGTGTG ATAGTTTGAG GAGCTTTTCC	720
AAGTAGAGAG GCAATTTCTC TATTTGATTT TCCTTCTTTT TTCCATCTTT CGATTAAGCG	780
ACGGCTATCG ATTGTCAAAT GTTTGGCTTT TGTAGTATAA TTGCTTGCA TCTCTGTGCC	840
TTCTTGTGT TTGTGGTTGA ACAACAAGTA TAACACAGAG GTGCTTCTT ATGCCTACAA	900

1299

GAGCTTTCAT TATTTCCATT TTCTTTTGA TTCTACTCTA TTCTGAAAAA CTGTGTATA	960
TTTACTGAAG CTAGCAAGTC TTACCTGTAA ATTTAATGAA AGCAACACAA AATCCGAGAG	1020
GGGAATCTCG GATTAATAGA TAGAGAGTTT TTAGTTTAAA TAAATTGTTT AAAATATCAA	1080
CAACATCACT TCTTTTCTTA ACCTGATAAG TCTTGATTCC TAATTTTGGG GCTACGATTA	1140
TATTGTCCTC AATATCGTCT AGAAAGACAC AATTTCTAGG TTATAACTGG TATTTATCGA	1200
TAGTTACTCA TATACATCAG TCCACCTCCA TACTTATGTG CGAGCCTCTC TTTGTATTAT	1260
ACCTCCATAC TCACCTTACA GATTCTTTTG GTAATAATAT CTTTGCCTAA TGTAGAGACA	1320
GTCTTGCAAA GAAAAAAGT CCTTGTAGCC ATGTTTCTGA TAAAAGTCCG GTGCCTGGAA	1380
CTGGTAAGTA TTGACAAAGG CAAACAACA ATTTGATTTC TTAGCTTCAC TTTCTGCCTG	1440
TGCAATAGT TTTGAACCGA TTCCTTGCCC TCGCAGTCC TCTTTTACAA ACAAATACTC	1500
GATTTCTAGC CAATTTCCAA AAGTCTCTGC TATCAAACCT GCCAGGAGAT TGCCCTTTTC	1560
ATCTTCGACA TAAAGATTAA GTGGCTCACT TTCAGCCTCT TCTCTTTTGT AACGGTTATA	1620
AACACGAATC AGATTCCCTA TTTCTTGCGA TTTATGTGAT TCCTTATTTT CCAATCTAAA	1680
GTATAGTGAA ATGAAATAAA ACATGCGCAA ATCGATTAGG GAATTTAATC TAATTTCTAA	1740
CAATGTCTTA GAAATCAAAG TGTACTATTT TAACCTCAAT GCACTATACA TCTAATACTC	1800
AATAAAATC AAAGAGCAAA CTAGGAACT AGCCGCAGGT TGCTCAAAAC ACTGTTTGA	1860
GGTTGTAGAT AGAAGTACG AAGTCAGCTC AAAACATAGT TTTGAGGTTG TAGATGAAAC	1920
TGACGAAGTC GGCTCAAAAC ATGGTTTGA GGTGTAGAT GAAACTGACG AAGTCAGCTC	1980
AAAACAGG	1988

(2) INFORMATION FOR SEQ ID NO: 269:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 709 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 269:

CCGGATATTT GTTTTATGTA ATTTTCTTGC AAGTTTCTTC TTAGTAGCTT GTCAGTCAGG	60
TTCTAATGGT TCTCAGTCTG CTGTGGATGC TATCAAACAA AAAGGGAAAT TAGTTGTGGC	120
AACCACTCCT GACTATGCAC CCTTTGAATT TCAATCATTG GTTGATGGAA AGAACCAGGT	180
AGTCGGTGCA GACATCGACA TGGCTCAGGC TATCGCTGAT GAACTGGGG TTAAGTTGGA	240

1300

AATCTCAAGC ATGAGTTTGT ACAATGTTTT GACCAGTCTT CAAACTGGTA AGGCTGACCT	300
AGCAGTTGCA GGAATTAGTG CTA CTGACGA GAGAAAAGAA GTCTTTGATT TTTCAATCCC	360
ATACTATGAA AACAAGATTA GTTCTTGGT TCGTAAGGCT GATGTGAAA AATACAAGGA	420
TTTAACTAGC CTAGAAAGTG CTAATATTGC AGCCCAAAAA GGGACTGTTC CAGAATCAAT	480
GGTCAAGGAA CAATTGCCAA AAGTTCAATT AACTTCCCTA ACTAATATGG GTGAAGCAGT	540
CAATGAATG CAGGCTGGAA AAATAGATGC TGTTCATATG GATGAGCCTG TTGCACTTAG	600
TTATGCTGCT AAAAACGCTG GCTTAGCTGT CGCAACTGTC AGCTTGAAGA TGAAGGACGG	660
CGACGCCAAT GCCGyTGCTC TTAGAAATA GTGATGATTT GAAAGAAGT	709

(2) INFORMATION FOR SEQ ID NO: 270:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1680 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 270:

TATAAAATGT TAAGTTAAAT GATTTCAAAA TTCAGAAAGG GATTGCTTTA TGCAGTTCCT	60
TTTTATTTTA ACAGGAGTGA AACTATAGTG TTTCTAAATT GTGAATCAAT CAAAAGTGAT	120
TGTGATGGGG CTATTCTAGC TTTAGAAACC TTCAAAAATT AAAATTTAAG GCAATCAATT	180
ACTTGAAGA GTATGAAAGC ATTTAGTTTA TAGGAATCTT AGGTCTAGAA TTACATATAT	240
ATATTTATGA AGACGGGGTG TTCGATAGTT AGTATTGTTC TATTCTGAAA GATTTGAGCT	300
GTCAGTTGTA TAGAAAGTGT TCGAATTTTT TTAAGTGATT AAATTAGTTA ATTGTATGAG	360
GTGCTTTATG ATATAATGTT CTTAATGAAT TTCAGAAAG GAAAACCTCA AATTGTTCTA	420
CAAATTTCTA CTCTTCGACC TCGACCACAC TCTTCTTGAT TTTGATGCTG CTGAGGATGT	480
GGCTTTGACC CAACTTCTAA AAGAAGAAGG AGTTGCCGAT ATTCAGGCTT ATAAAGATTA	540
TTACGTTTCT ATGAACAAGG CTCTCTGGAA AGACTTGGAG CTGAAGAAAA TCAGTAAACA	600
AGAGCTGGTT AACACGCGCT TTTCTCGTTT ATTTGCTCAT TTTGGACAGG AAAAAGACGG	660
TAGTTTTCTT GCCCAGCGTT ACCAATTTTA CCTCGCCCAG CAGGGACAAA CACTATCGGG	720
CGCTCATGAT CTCTTGACA GCCTCATTGA GCGTGATTAT AACTTGATG CTGCGACAAA	780
TGGCATTACT GCCATTGAGA CAGGACGTTT GGCTCAATCT GGTCTAGCAC CTTATTTCAA	840
TCAAGTCTTT ATCTCAGAAC AGTTGCAAAC TCAAAGCCG GATGCTCTTT TTTATGAAAA	900
GATTGGCCAG CAAATTGCTG GATTAGTAA AGAAAAGACG CTGATGATTG GAGATTCTCT	960

1301

AACCGCCGAC ATTCAAGGTG GCAATAATGC GGGGATTGAC ACTATCTGGT ATAATCCTCA	1020
TCACCTCGAA AATCACACAC AAGCCCAGCC GACTTACGAA GTCTATTCTT ACCAAGACTT	1080
GCTGGATTGT TTAGATAAAA ATATTCTTGA AAAGATCACA TTTTAAAGGA GACGAGCTAA	1140
TGACTACAAA AAAGCTAATA TTACTATTGA AGAGTACATT GAAATGTCTG AAGTTGATTT	1200
TAATGAAGCT GTTAATTATG AATTTACATC TGACACTTGT CAATTAGCAA ATAGTATTTA	1260
TCAATCTCTT TTTAAGTTTT TTGATAAGAA AAATTTCTCT GCGCATTTAA TTTTACTTG	1320
GAAATCTCCA TCATTAGTCA AAGAAGGGGA TTATATTGGG AGAAGGGATT CACAAGTAGA	1380
TAATCTTAGA GTAATAGGAA ATATATTTCC GAATTATCTT ACTAATCGAA AATATAGCCT	1440
CAATATGAAT CGTAATGGCT GTATGGGAGA TTTTCCTCAT GACTTTTTTG ATATATACCT	1500
AGATCATGTA GCAAAATATG CCTACGAACA AAAAGTTAAT AATATTAAAG AGTATTATCC	1560
TTTAAAAAGA GCGATTTTAC ACCAAGAGAA TGCATTGTAT TTTCGATTTT TTTCTAATTT	1620
TGACGACTTT TTGAAAAAAA ATTATTTAAA GACTATATGG CAAGTTTCTA AAGAAACTCC	1680

(2) INFORMATION FOR SEQ ID NO: 271:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 598 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 271:

AGCTCGGTAC GTAGTATnTG TGGTGCATAA ATGAGTGAAA AGAGGATAGA GAGGATGAGG	60
CCGATAAGAA CACCGGTAGC TGCATCGTGA AATACTTGTT TTTTCATAGT TCTAATTTCT	120
CCTTGATGGT TTTTAGATAA CGGCGTGAAG AGTAGGTGAA GCTTTCGTTT TTCAAGAAAA	180
TTTCTACCAG ACCGTTTGGC GTGAgCTTGA GGTGAGAGAT GGAATCGATA TTGATGATTT	240
CTGATTGGGA AATTGGGATA AAATTGGTTG GCAAGAGTTT AAGAACCTGA TAGAGTCGCA	300
AATCAATGCT GTAGGTCTGA CTCGCGGTTT CTGCTAGAAC CTTCCGATTC TCGATATAGA	360
AGCGCTGAAT CTTGCCAATC TCAACTAGAT AGACCTGATC ATCGATTTT CCTTTGATTT	420
TTTCTCTTTG GTCCAGATTT TCTGCGAACT CGATGACTTT CTGGACTTTT TCGGTTTCTT	480
GAGGTGCTTG GACAATCAGC TTTTCTCCT CGTAAGTCTC ACTAATCTGT AGTTCTACTT	540
TCATAGTTT CTCTCCTTT CAGTTATACA AGGTTGTGAT CACTTCCTGT ATATCCGG	598

(2) INFORMATION FOR SEQ ID NO: 272:

1302

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1099 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 272:

CCAGCAAATC AATAACTGCA ATTGCTATAA AATGGATTCT ATAGAGTTTT TTCATGACAA	60
GACCTCCCTC TTTTATCTAA CTTCACTCTA CTCCAAAAGA ATGGGAGTTA CAACTAAAAT	120
GATAAAAATA GCAGAAGGGA GATTCTCTTA AGTTGGCTAG TATTCCTTTAT TTGAGTTTCC	180
TTCTATTATC TAACTTCTTC ATCATTCCAG ACAAATAAAG CTCCGATTGC ATTGAGGATA	240
TAAAAGATGT ATTTACCGAT ATTGGCGAAG TTTCCTTGAA TACCAGCTTT TGTGAGCTGA	300
ACGAAATTGT AAATCAACCA AAAGCCCCAC TGAGTTGTGA GTTTTAATGC ATTCAAAGCA	360
TTGGCAATGA GGGACAGTGC AAAGGCAATA GTTGTACGT AGGCAAGGAG ATTCATCTTG	420
CCCCCATATC CGATATAGTT GGTCAAAAG GCAAAGAGGA AGGCGATGAT GGAAATGATG	480
ATGGCCGCCA ATTTTACCTG TTTTGGCTC ATTTGGTTGG GTCTGCCTTC TTGCGAAGCT	540
TCCCACTTCT TTATAGCAA GGTATAAATG AGGAAGGTGA CGGGATAGGT AATGATGGCC	600
GCCTTATTTT CAAGGATATA ATCAATAGCA CCGGACAAAA TGGTATTAAC AATACCAAAG	660
TAATTTCCCC ATTTGCTTAA TTTCCCCGTG AAACGAGTGG ACAACATGGA AATCCCAACG	720
TTGGTTACGG AAATCAATCC AAAGGTACA AGAGCTGTCC ATGATCCCCA GTCTACAAAT	780
TTATCGAGGT GTGAGTTGAG GTAACCAGAT GCAATCGCAA TCCCAACGAC CAAAGCAACC	840
CCGAAGAGGT CAACTATTTT AGATGTAGCA AAAATTTTGA GTGATTTTTT CATAGGTTAA	900
ACTACCTTTC TTTTTTCAA ATATTCTCCC ACCAAATGAA AGTAAAATAA AATGATAGAA	960
ATAAACCCCT GAAATAAAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT	1020
TATGGAGCCT ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA	1080
AACAACTCAT TAGAAAGAT	1099

(2) INFORMATION FOR SEQ ID NO: 273:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2723 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 273:

1303

CTGGGATTCA CGTGAAAAGG AAGCCCAGAG AGTAGCCAGG TGTACTGCTA GAACAGTGAG	60
TGAAATTGAA TATTACCATA GAGAGTCAAC CCAGATAGCT CAGGCTTTAG TTGAAAATCA	120
AGCTCGTATC GAGGGAATCT ATAAATACTT TAGCCTTAGC ATGCCAGACT ATTTTTACTG	180
GCAATTAGAG CGGAAAGCTT CGCCTTATAT ATCAGTCTCT CTGTATGAAA ATGTTGATGA	240
CCTCTATGTT CGAAATGATT TTGTAAGTGG GGTGGCCATT GCTTTTCAAG ATTACAAGGA	300
AGTCTATGTT TCTACTAAAG ACAAACGTAG GkKAGAAAA ATCAGGGCTG AGGATTTCOA	360
ACCAGCAGGA AATAGTTTTG CCATTCCAGT GTCAGATCCA GTGTCAGATC AAGACTTAGG	420
AGTGATTAC ATCTCCTTGG ATCCTGCTGT TTTATACCAT GCCATTGATA ATACTAGAGG	480
TCATACTCCG ATGGCAGTAA CAGTGACCTC ACCTTTTGAT ACGGAGATTT TTCATATGGG	540
TGAGACAGTT GATAAGGAGA GTGAAAATTG GCTAGTTGGC TTAACCTCTC ATGGATATCA	600
GGTTCAGGTG GCAGTTCCTA AAAACTTTGT TTTACAAGGA ACAGTGACTA GCTCTGCTTT	660
GATTGTGGGT TTGAGCCTTC TCTTTATTGT CATTCCTTAT CTGACTTTGA GGCAGACTTT	720
TGCTAATTAC CAAAAGCAGG TAGTGGATTT AGTAGAATCC ATTCAAGTCA TTGCTCAAGG	780
CGAAGAGGGG CGTCGGATTG ACATTTCCGA GAAAGATCAG GAATTACTCC TAATCGCGGA	840
GACGACCAAT GATATGTTGG ATCGATTGGA AAAGAATATC CATGATATTT ACCAGTTAGA	900
GCTTAGTCAA AAAGATGCCA ATATGCGAGC CTTGCAGGCG CAAATCAATC CTCATTTTAT	960
GTATAATACG CTGGAGTTCT TGCGCATGTA TGCAGTTATG CAGAGTCAAG ATGAGTTGGC	1020
AGATATCATT TATGAATTCA GTAGTCTCTT GCGTAACAAT ATTTCCGACG AAAGAGAGAC	1080
CCTCCTCAAA CAGGAATTAG AATTTTGCCG TAAATACAGC TATCTCTGCA TGGTTCGCTA	1140
TCCCAAGTCC ATTGCCTATG GTTCAAGAT AGATCCAGAG TTAGAGAATA TGAAGATTCC	1200
CAAGTTTACC TTGCAACCGC TGGTAGAAAA CTATTTGCGG CATGGTGTG ACCACAGGCG	1260
GACAGATAAT GTGATTAGCA TCAAGGCTCT TAAACAGGAT GGTTTGTGG AAATTTTGGT	1320
GGTCGATAAT GGTAGAGGAA TGTCGGCTGA AAAGTTGGCA AATATCCGAG AAAAATTAAG	1380
TCAGAGATAT TTTGAACACC AAGCCAGCTA CAGTGATCAA AGGCAGTCTA TCGGGATTGT	1440
CAATGTACAC GAGCGTTTTG TGCTCTATTT TGGAGACCGC TATGCCATTA CTATAGAGTC	1500
TGCAGAGCAA GCCGGTGTTC AGTATCGTAT TACAATTCOA GATGAGTAGA AAGGGAGAAA	1560
ATGTATAAAG TATTATTAGT AGATGATGAG TACATGGTGA CAGAAGGTCT GAAGCGTTTG	1620
ATTCCCTTTG ATAAGTGGGA TATGGAGGTC GTCGCAACAG CCAGTCATGC CGATGAAGCT	1680
CTAGAATATG TTCAGGAAAA TCCTGTGCGT GTCATCATTT CCGATGTCAA TATGCCAGAC	1740

1304

AAAACAGGGC TTGATATGAT TCGGGAGATG AAAGAGATCT TACCAGATGC TGCCTATATC	1800
CTGCTCTCAG GTTATCAGGA GTTTGATTAT GTAAAAAGAG CAATGAACCT TAGTGTGGTG	1860
GACTATTTGG TCAAGCCTGT TGATAAGGTA GAGCTGGGAA ATCTGCTGGA GAAGATTGCA	1920
GGTCAGCTCG GCGAGAGAGG GAAGAAAAGT CAGACTCTTA GTCAAGAATT AGACGAGGCT	1980
GGATTGTGTA GTTATTTAGG GGATAAGGAG AATTGGTGGA TAGGTCTATC CAAGGAAAAA	2040
CAAGGTTTCT TCACCATTCC CTAATATGTC TTGGGTCAAG ACTGGCAGAT TTTCATTTCT	2100
GGCCACCCCC TAGATGGTTT AGTCGTTACA CCTTTTGAAG CTCCTTATCA AGAACACTTT	2160
GAACGCTGGA AGCTGAATGC TGAGAAAACC CTCTTTTACG GTTCTGTAAA TCTGCAGCAG	2220
TCTGAGAGTC TCTTTGCCCTA TTACGAACCG ATTTATAGGG TTATCATTC AAGAAATCTC	2280
AATCAAATCG TAGAAGAGTT AAATCTCTTG GAGAAGGTAG TTCTTGAAAA TACACCTCGT	2340
GTTTCGATTA CTAAACAGCT TTTTATCCAG TTGTGTCATGG ATGTTTTCCTA TTTATTTGAA	2400
CATCTCAAAG CTGATGATAT GACGGACATT GTCAAAACCA TTCATGCTAT TCAATCCTTC	2460
GATGAATTGG TTTCTTATAT CAAGGAAACT CTGATCAGCT TTTTCGGTCA ATACCGTATG	2520
AATGAAAATG TGGTCAGTGT GCTGGAAGTC ATTGGTCGTG ATTACCAAAA AGAGCTTTCC	2580
CTCAAGGATA TCAGTAAGGC CCTCTTTATC AATCCTGTCT ATCTAGGGCA GTTGATTAAG	2640
CGTGAAACCG ATTCGACCTT TGCAGAGTTA CTAACAAAC AACGTATTAA GGCTGCCCAG	2700
CAGCTCTTGC TTTCAACTAG TGA	2723

(2) INFORMATION FOR SEQ ID NO: 274:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 836 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 274:

CCGCAGTTTT TTAAACCGT ATATAAGTAT AGCATAGTCA AAAAAAGAAT GCAAGATTTT	60
TGCAAACTTT TTAAAAATT TTCGTAATTT TTCTTTTAAA GTTCTACTGT CAGGACTTGA	120
CCTTGCTTAA CAACCTGTTT TCCGGCGATA TAAACATCAT CTACATCACT AGATTTAACT	180
GCATAAACCA GGTGAGACAG CATATTTTCC TGAGGTTGGA GATGAATTTT CCTTGTGGT	240
TGAATGACCA GAAATCTGC TTGCTTGCCG ACTTCCAGAC TTCCTATCTG ATTTTCCATT	300
CCAAGGACCT TAGCCCCTTC GATTGTCACT ACCTTGAGAG CTGTTTCGAT TGGAAACTGG	360
CTGGCATCCC CACTTTTCAT CTTCTGAAGA AGAGCTGCAG TCCTTCCTTC CTCAAACATA	420

1305

TCTAGATTGT TATTGGAAGC AACCGAGTCA GTCGCAATTC CGACTGCTAC TCCCGCTTTT	480
TGGAGCTGGA TAATTGGAGC AATTCTGAT GCCAGTTTGA GGTACTGAT AGGATTGTGG	540
GCGATAGCnA CTTGAGAAGA TGCCAAGCGT TCAATTTCTC TCTCGTTTAA TTGACCCCG	600
TGAGCAAATA CGGACGGATG ATCTAAATAA CCCAGTTCTT CAAGAAAAGC AAGGGGGCGT	660
TTGCCGTATC GTTTGAGGAT AATTCTGAC TCCTCCTTGG TCTCCGCCAC ATGGACATGG	720
AGCGGAATAT TTAGCTCTTT TGCCATTTC AAATCGCTT CCAGCAAGTC TCTACTGCAG	780
CTATACGGAG AATGAGGTGC TACCATAACC TTGAAATTG GATTTTATA TTTTAA	836

(2) INFORMATION FOR SEQ ID NO: 275:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2335 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 275:

ATTTTATTTT ACTTTTATAG TGGTCTGGGG CTATTCTTAT ATAGCnTCAA GACCATGGGA	60
GACGGTTTAC AACAGCTGC TGGAGATCGC CTGGGTTTTT ACATTGACAA ATATACTAGT	120
AATCCTTTGT TTGGAGTTCT GGTGGGTATT GGGATGACTG CTCTAATCA GTCTAGTTCT	180
GGTGTAAACG TTATCACAGT CGGCCTGGTC AGTGCCGGTC TCTTAACCTT ACGTCAGGCT	240
ATCGGGATTG TCATGGGTGC TAATATTGGG ACAACTGTCA CATCCTTTCT CATCGGTTTT	300
AAATTAGGTA ACTATGCCCT ACCTATGCTC TTTATCGGTG CCGTCTGTCT TTTTTTACG	360
AAAAATCGGA CAGTCAATAA TATCGGACGC ATCCTCTTTG GTGTCGGTGG TATCTTTTTT	420
GCCCTCAATC TCATGAGCGG CGCAATGGCT CCACTCAAGG ATTTACAGGT CTTTAAGGAC	480
TATATGATTG AGCTAAGTAA GAATCCTGTT TTGGGTGTCT TTGTCGGTAC TGGCTTGACC	540
TTGCTAATTC AAGCTTCTTC GGCTACCATT GGGATTTTAC AAAACCTCTA CGCCGGCAAT	600
CTAATTGATC TACAGGGAGC TTTGCCAGTT CTATTTGGTG ACAATATCGG GACAACCATT	660
ACAGCCATCA TTGCCTCTTT AGGGGCTAAT ATTGCAGCTA AACGGGTAGC AGGAGCTCAT	720
GTTCCTTCA ACGTTATCGG AACAGTTGTC TCGGTTATTT TTCTAGTTCC TTTTACTGTC	780
CTGATTCAAT GGTTTGAAGC TACGCTAAAT CTAGCACCGG AAATGACCAT CGCCTTTGCT	840
CACGGAACCT TTAATATTAC CAACACCATT GTCCAATTC CATTTATCGG AGCTCTGGCT	900
TACTTTGTAA CCAAGATTAT TCCTGGAGAG GACGAGGTTG TCAAATACGA ACCCTTATAT	960

1306

CTTGATGAAC ATTTTCATCAA ACAGGCCCCA TCTATCGCTC TAGGAAATGC TAAGAAAGAG	1020
CTCTTGCACT TAGGAAACTA CGCTGCTAAA GCCTTTGACC TTTCCTATAA GTACATCATT	1080
GACTTGGATG AAAAAGTTGC TGAAAAAGGG CATAAAACCG AAGAAGCAAT TAACACCATC	1140
GATGAGCAAT TAACACGTTA TCTCATTGCC CTTTCAAGCG AAGCTCTCAG CCAAAAAGAA	1200
AGTGAAGTGC TTACCAATAT CCTTGATTCC TCCCGTGATT TGGAACGGAT TGGAGACCAC	1260
ACGGAGGCTC TACTCAATCT GACTGACTAT CTTCAACGGA AAAATGTTGA ATTTTCTGAT	1320
GCCGCCTTGA AAGAATTAGA GGAAGTTTAC CGCCAACTA GTGACTTTAT CAAAGATGCT	1380
CTGGATAGTG TGGAAAACAA TGATATTGAA AAAGCAGCA GTCTGTAGA ACGTCATGAA	1440
GCAATCAATA AGATAGAACG TGTTCTCAGA AAAACCCACA TCAAACGCCT CAACAAAGGC	1500
GAATGTTCAA CACAAGCTGG GGTCAACTTT ATCGACATCA TCTCACACTA CACTCGTGTA	1560
TCAGACCACG CTATGAACCT TGCTGAAAAG GTTTTTCAG AACAAATCTA AGAACCAAGA	1620
AGCTATCCAT CATAATTGGA TGGCTTTTTA CTTTTCCTA AGCAAGACTA GGATGAATGA	1680
AACTGAAAGA GTATTCTGCA GATATATAGT CCCCATTAT TCACCCCAAA TCTAAAAACC	1740
ATCCAGAATC CTGCGCTTAG CTTAGATCCT GGATGGTTTC TTTTTCACC CAATGGGTGT	1800
TTTTTACTAG ACAAAAAGA GTTCCCTTT TATGGTATAA GTGTAGAAA AAACACAAA	1860
AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA GTCTTTTAC	1920
CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT TTTTCAGGAA	1980
CTTTTTCCTC AGTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC GAATGACCAA	2040
CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCTTGTC AGTTCCTCTT TCAACTGTTA	2100
ACAGGTTATG GAACGACTA TGCTTGTAAG GAATTGTCAG CTGATGCCTA CTTTCCAAAA	2160
TTGTTGGAAG GAGGGCAGCT TGCTTCACAG CCAACCTTAT CCCGTTTCT TCCAGAACT	2220
GACGAGGAAA CAGTCCATAG TTTGCGATGC CTCAACCTTG AATgGkCGAA TTCTTTTAc	2280
AGTTTCACCA GCTAAACCA CTCATTGTAG ATATCGATTC TACCCATTTC ACAAC	2335

(2) INFORMATION FOR SEQ ID NO: 276:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 752 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 276:

CGGATTCACT GTTGTGACT AATCAATAAC ACAGTAGAAA ATCTCACAGC AGTCTATTAG	60
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1307

TTGCTTTTCA TACTAGGCAA GTGACTGAGG CTTGTACTTG GGTACAGCAA GGGAGCTTAA	120
GGCCGTAGAA GAGAAAAATA GTAGACTGAA AACCCGCAAG ACTTCATCAT TTCGAGAAGT	180
GACGTGGGAG ATGAAATCG ATTGAACCAC TTACAAGGAG AATAGAAAAT GGCTAAAAAA	240
AGCAAACAAC TTCGTGCTGC TCTTGAGAAA ATCGACAGCA CAAAAGCATA CAGTGTAGAA	300
GAAGCTGTAG CACTTGCAAA AGAACTAAC TTGCAAAAT TTGATGCAAC TGTAGAAGTT	360
GCTTACAACT TGAACATCGA CGTTAAAAA GCTGACCAAC AAATCCGTGG AGCAATGGTA	420
TTGCCAAACG GTACTGGTAA AACTTCACGT GTTCTTGTTT TCGCACGTGG TGCAAAAGCT	480
GAAGAAGCAA AAGCTGCTGG TGCAGACTTT GTTGGTGAAG ATGACCTTGT TGCTAAATC	540
AACGACGGTT GGTGGACTT CGACGTAGtT ATCGCTACAC CTGATATGAT GGCTCTTGT	600
GGACGTCTTG GACGTGTCCT TGGACCACGT AACTTGATGC CAAACCCTAA AACTGGTACT	660
GTAACATGG ATGTTGGCAA AGCGGTTGAA GAGTCTAAAG GTGGTAAAT CACTTACCGT	720
GCTGACCGTG CAGGTAACGT TCAAGCAATC AT	752

(2) INFORMATION FOR SEQ ID NO: 277:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2643 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 277:

GTCAACATTG ATTTCAAGGC TGTTTGCTTT CTATCTCCCC TTTTTCATAA TGTATAATAA	60
AATGAAATAA TAACAGGACG AATTGATCGG GACAGTCAA TCGATTCTA ACAATGTTT	120
AGAAGTAGAG GTGTACTATT CTAGTTTCAA TCTACTATAT TTTCGTACAG GTGCTTCAAC	180
CATTTGAACG ATTTCAAATC CTTCTTTTGT GTAAAGATTC TGAGCTCTTT GATTTGCCTC	240
GAAGACATTT AGAGAAATAC TGTCTATATC TCTATTTTCA AATGCTAAAC TAACAAATTT	300
CCTTAAAGCC TTGCTACCTA AGCCTTGCTC CTGTTTCTGG GGGTTGATAA AAAATCTCCC	360
GATATGAAGA TTGCTGTCTT CTAGCCTGAT TTTCTGGATA AATCCACAA ACTCTTGTTT	420
ATCAAAGATT GAAAAGACTC CTTCCAAGGC TTGAAGTGTG AGTAGAAAAG GAATCCTTGG	480
TCCCATCCAT TGTTCTTGAA AGGATTTGCC TAGGGAGTTG GACCACTGGC ATACAAATTG	540
AGCGTTTCTT GTGCTCACCT TTTCTTCAA ACGAATTGTC ATCTTTTCCT CACCACCTTA	600
TCTATGTTTC TCCATTATAC TATTTCTCCC ATTTTITACG AATAGATAAG TATGATTGAT	660

1308

TTTTATTTT	TTCTCGTCGG	GAGCATTCTA	GCTTCCTTTC	TTGGTTTGGT	CATTGACCGT	720
TTTCCAGAGC	AATCCATTAT	CAGTTCAGCC	AGTCACTGCG	ATTCCTGTCA	GACTCCCTTG	780
CGTCCCTTAG	ATTTGATTCC	GATTCTCTCA	CAGGTCTTCA	ATCGCTTTCG	CTGTCGCTAC	840
TGCAAAGTTC	GCTATCCTGT	CTGGTATGCC	CTCTTTGAAT	TAAGCTTAGG	ACTCCTCTTT	900
CTGCTTTACT	CTTGGGGATG	GCTCTCCTTG	GGGCAAGTCG	TCCTAATCAC	CGCTGGTTTG	960
ACCTTGGGTA	TCTACGACTT	TCACCATCAG	GAATATCCCT	TACTGGTCTG	GATGACTTTC	1020
CAGCTAATCC	TAATAGCTTC	CTCTGGCTGG	AATCTGGTCA	TGGTCTCCTT	CCTCATACTT	1080
GGAAATTTGG	CTCATTTTAT	CGATATCCGC	ATGGGTGCAG	GGGATTTCCCT	CTTTTGTAGCT	1140
TCTTGCTGCTC	TCGTCTTTAG	CGTAACGGAG	TTACTGATCT	TGATTCAGTT	CGCTTCTGCG	1200
ACGGGTATCC	TGGCCTTTCT	CCTGCAAAAG	AAAAAGGAAA	GACTTCCTTT	CGTGCCTTTC	1260
CTCTTACTTG	CTACTTGTTC	GATTATTTT	GGTAAGCTAC	TGCTTGTCTG	ATAAAATCCA	1320
ATTTCTGCCA	TATATCCTTC	ATGAAATTAT	TTCACAGTTA	AATTATAAAT	TATTTCTTTT	1380
GTACAAAGGG	ATGATGTTAT	CAAATCGATC	TGTTCTTCTA	TCTTCTTGAT	ACTGATCAAA	1440
AAATTTTATT	TCGACTGAAA	ATATTCGCT	TATAAAGTGT	AAACGAATAC	TTTGTTTAGA	1500
CATTATAGTC	GCTAGACTGA	CTAGATGATT	ACTCAAAACG	ACGTCCAGAA	TACTCTTTAC	1560
TTTGCTTGGT	TTTTTAACAA	AAATTTGATC	ATCCAAGGGT	TCAATCATTT	TGTAACCTTT	1620
TTGCCCAATT	TGACGATAAA	AGTAAGAATG	TTGCTTTGGA	GTCAATAATC	CTAACTTAAA	1680
AGCTCGATAC	TCTAAAGCCT	GTATCGAAAC	ATTCAAATCC	GACTTCAATA	AAATATAACT	1740
ATCAGGATTG	CTGACACGCT	TGCCAACCCCT	CTCTTCAAAT	TTGACTAAAA	ACTCTTCTTT	1800
TGGCAATAAA	AAACATGATG	CAAAATAATT	TGCTTCTTGC	TCCAAACGAT	CGCCATCTTC	1860
ATTCATATCT	TTATATTAT	GTAAAAGAAT	ATGTCCTAGC	TCATGAGCTA	AGTCAAAATT	1920
TCGACGTACA	GATGATTAT	TCGTTCTTAA	CACAATATAA	GGTCTTCCCA	ATTTTGACCA	1980
TGCGCTATAA	GCATCAGCTT	GGCCATTAAT	TAATCGTTCC	ACGATATAGA	TGCCTGAACG	2040
TTCTAATTTA	TAAAGCAAAT	CATGATTATC	TTTTGAAATA	CCTAATTTTT	CCCTGGCATA	2100
AAGAGCCAAT	TCCTCAATGG	ATTCTCCCTT	ATGATAAGAT	TCACTCACTA	CATTACTTAG	2160
GTCATGAATT	ATAATATTAG	GTATAATTAC	AAAACCTTCA	AAATAATCAA	TCAAACATATC	2220
TACCTTATGT	AAATACATAG	TTTGAATATC	TATTGTTTTT	CGTGTGCTA	GGTCTGCATT	2280
TCTAAAGGCA	ATTACAGAAG	AATCAAATCG	AATGCTCTCT	TCTTCCTGTT	CAAATAAGT	2340
TAAATCAACA	TGAAATTGGT	TGGCCAAATG	CATTTTGGTT	GATAATTTAG	GTTTCGTTTC	2400
GTGGACTCA	AACTGCCAAA	TGGCTTGTTT	CGTTAAATTA	ATTCTCTGAG	CTAATTCCTGC	2460

1309

TCTACTTAAA CCATTTAACA GCCGTAATTC TTTCATACC CGACCATTAA ACATTTACAT 2520
ACTCCTTACT ACTTTTGACC TTCTTGTTTT TCTATCTTG GAATAATTTC AAAATCTTCT 2580
GTTTCCGATA ATTCTGAAAA ATTAGGAATA TCTTGATATT TAGCTTCTTC GAAATGGTAC 2640
GGG 2643

(2) INFORMATION FOR SEQ ID NO: 278:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 582 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 278:

TGACCACTGG CAAATGGCT ATCCAAATGC AGATGTTATT ATCGATGATA TCATCTCAGG 60
GCAAGCCTAC GTAGCCTTGG AAGAGGGAGA ACTGCTAGCC TATGCTGCTG TGACCAAGAG 120
TCCAGAGGAG GCCTATGAAG CTATTTATGA GGGAACTGG CAAGCTGGAG AGTCAGAGTA 180
TCTAGTCTTT CACCGTATTG CTGTGGCAGC AGATGTGCAG GGAAaAGGAG TTGCTCAAAC 240
CTTCTTAGAG GGCTTGATTG AAGGTTTTGA TTATCTTGAT TTTCGCTCAG ATACGCATGC 300
TGAAAAACAAG GTTATGCAAC ATATTTTTGA AAAACTTGGT TTAAACAAG TCGTAAGAT 360
GCCAGTAGAT GCGAACGCT TGGCCTATCA AAAATTAAAG AAATAATGCA AAAGAAGTAT 420
GTAAAAATCC TCTACTCTC ACCAATTGGT ATTCTATCAC TTGTAGCTGA TGACCATTAT 480
TTGTATGGAA TTGGGTTCA GGAGCAGAAG CATTTTGAGA GGGGACTAGG AGATGAAACG 540
ATAGAAGAAG TTGTWAGTCA TCCTATTTTA GACCCAGTTA TT 582

(2) INFORMATION FOR SEQ ID NO: 279:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 554 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 279:

CCCAAGCTAC TAAGAGACTA AAACCTGCTA GAGAAGCAAG AGAAAGTGTG AATCTTTTTA 60
ATTTTCATGAT GAATTCCTT TCTGCTACCA ATTTAGAGAA ATTTTCTCTA ACCAGCAATT 120
CCCCTAGTAT AACAAGTTCA AAAAATGGAG TCAATTTATC TGCTCACGGT CCAGCAGGTA 180

1310

GCCCCGTACT TCTGAGATAA AATAGAGAGA CCCTGTAACG AACAGCAAGT CTTGAGCGTC	240
TGCCCTTTCT TCAAAATCGC TGATAAATC TCGGTAAGAA GAACTATAT CGTAACCTGT	300
CACATCCCTT TCGTCCAAAG CCCCTGATA GTCAAAGCCG GTCACCTTGA GTTCCACCTG	360
AGGCAATTTT TCAGTCAGAT AACCCAACAT CCCTTGATAA TCCTTACGTT TCAAGGATCC	420
AAAGAGGATT TGAGGTCGAT AGCCTTCCTG CTCTTTTCTT TTGATAAACT CAGCCAAGCG	480
AGTCAAGGCA GGGAGTTTAT GAGCACCATC CAAATAAATC TGTGGGCGAA TACGCTCCAA	540
GCGAsCAGCC CAAT	554

(2) INFORMATION FOR SEQ ID NO: 280:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 766 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 280:

CCGGTTTTTC AAATGAATTT CTTGGTTGTG GCTAAAAAAT ATGCTACACT ATCAATATGA	60
AAATTTTAAT CCCAACAGCA AAAGAAATGA ACACAGACTT CCCAAGTATC GAGGCAATTC	120
CTTTAAACC AGAAAGTCAG GCCGTGCTTG ATGCCTTGGC TCTCTATTCT GCCAGTCAAT	180
TGGAGAGTTT CTACAAGGTA TCAGCTGAGA AAGCGCGGA AGAATTTCAA AATATCCAAG	240
CTTTGAAAAG GCAAACTGCT CAACACTATC CAGCCTTGAA ACTTTTGTG GGGCTTATGT	300
ACCGCAACAT TAAGAGAGAT AAGCTGACCG AGGCGGAACA AGATTATCTT GAAAATCATG	360
TTTTCATTAC CTCGGCTTTG TACGGTGTG TTCCAGTCTT GTCACCCATG GCTCCTCACC	420
GTTTGGATTT TTTGATGAAA TTAAGAGTCG CTGGTAAGAC TTTGAAGAGC CATTGGAAGG	480
CAGCCTATGA TGAAACTCTG AAGAAGGAAG AAGTGATTTT CTCTCTCTTG TCATCAGAGT	540
TTGAGACTGT ATTTTCTAAG GAAATCAGAG CAAAGATGGT GACCTTCAA TTCATGGAGG	600
ATAGAGGCGG TCAGCTGAAG ATTCACCTCAA CTATCTCCAA GAAAGCGCGC GGGGCTTTC	660
TAACAGCTTT AATAGAAAAT CAAGTACAAA CTGTGGGGGg AGCACGTCGC TTGAACTTTG	720
CTGGATTTGT TTACCGAGAA GATTGTGTCAC AACCACAGGG GGATGG	766

(2) INFORMATION FOR SEQ ID NO: 281:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 901 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1311

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 281:

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CCGGCCACGG TTCCATCCAA CTTACAGGT GTGCACTTGA TTGTGTATGT AATTGTCACT      60
AACGGTAGAA TTTCACCTAT CCCTCCTATC TGCTCGCAGT ACCCGCAGAC TTTCTGAAAG      120
AAGAAGATAA CCTACTTATC CGTTGCTATG ATTATACTAA AGTTTCTACT TTTTGC AAA      180
TAGATTTTTA AATTTTGGC TAATTGTCTG AATCAGGGTC GGAAGTTTGA CGACCTTGTC      240
ATTGCCTAGT TTTTCGCGTG CAATTTGAG AATGGCACCT GAGTCTTTTG AAGCAAAGAG      300
GAATTTTCCT TTGTCTGTAA AGACTTCGAA GTGGCGGCTG ATTTTGCGTC CAGTGACATT      360
GGCTCCAATC TGATTGATAT GGCTCCAAGG AATCTGGATA AATTGTTTCA CATGACATC      420
TGGGTAAAT TCCAAAGCCT GATCTCCGAC AAGGAATTC CCAACTTTCC CAGCGATAGA      480
GAGGTAGGAA GTGCCTGTCG TACTGAGGAG TACTGTTTGT TTAAGTGATT GGGCCATGCT      540
TAGTCTTCCT TACTTTCTCC AAAAAAGGCA TTGTAGAGGG CTTTAATTGC TGCTTTCTCT      600
TGTTCTTTAT TGACAACAAA CATAATAGAA ACTTCACTAG AACCTTGAGA CATCATCTGG      660
ATGTTGATTT TGTTTTCAGA TAGAGCGCGT GTCGCAGTAG CAGTCACTCC GATATGGCTC      720
TTCATTTTTT CACCAACAAT CATAATGATA GAAAGGTCGT GTTCGATTTT TGCATGATCT      780
ACTTTAGCCT TTTGAACCAA CTGACGCAGG ATTTCTTCTT CCTTGATGGG AGTTAGTTGG      840
CGAGAACGGA GAATGATAGA AAGAWCGTCG ATACCTGTTG GCATATGTTT CCAACCGATG      900
T                                                                                   901

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(2) INFORMATION FOR SEQ ID NO: 282:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1765 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 282:

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CCCTGTTACG TGGATAATAG GGTAAAGACTG CTCAGGATTT CCTAACAAAT CCACCGCTTG      60
CTGCATTGCA CCCAACCTG ATCGAAAATT CAAACCAATC CGACTATGGA GCCATTCTTC      120
TACTTCAAAC ATACACATCT CCTTGACAAA AGTCCAATCA ATTATCGCAT TAAAGTATGG      180
TTACTAATAA AAACAAGGCC AGGATTTTCG TCCCGACCTC TTACCTGGTT AGCTAATAAC      240
TAGCTACTAT GAATGTGAAT ATGGGCTAAA AACATCCACT GGACGTTCCA ACTCTTCCCC      300

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1312

ATTTCTGGGA GTTGGGTAA AAATGTTTAC TGGACGTTCC AACTCTTCCC CATTTCTGGG	360
AGTTGGGCTG ATACAGTCTC CCAGACTGTA TCACTCCTCC ATAAAGCTGT TGAAGACTTC	420
TTCAATCATG TTCCATTCTG CTTCTGAGTC TTCTGGGATT GGTGCAATT CGCCTTCTGT	480
TCCATCTTCG TTTTCGATGA ATGAGTAAGC TTGGATTICA ACTTGTCCTG CTTCTGCTTC	540
TTCTGCGTTA ACTGGTACTA GAAGAACATA GTTTTACCA AATTCTTCTT TTCCATCAAT	600
TGTCAAAAGG ATTTCAAACA AGGTTTCATT TCCTTGCTCA TCTACTAGTG TGATTAGTTC	660
ACGTTCTTCG TGGTCGTGGT TATGATCGTG TGACATAGCC TCGCCTTTAT ATTTAAATTT	720
TCTATCTAAA TAATTTTGTA AAATCAGCTG AGCTGCTAAC TTATCAATGA CTTTCTTGCG	780
CTTATTGCGA CTGATATCTG CTTGTTCAAT CAACATGCGC TCAGCAGCCA CTGTTGTCAA	840
GCGTTCATCC TGATAGTCTA CTGGTAAACC AAAAACTCT TCTAGCTTTG CTCCGTAGCT	900
TGACTAGCTT CTACGCGCGG TCCACTTGTA TTGTTTCATG TTTTAGGCAA GCCCACTACA	960
AATCGTTCCA CCTTGTAAGT ATCAACCAAT TCCTTAACGC GGTCAAAACC AAATTGGCCT	1020
TGTTCTTCAT TTATCTGGAT GATTTCAGC CCTTGAGCTG TAAAACCAAG CGGATCGCTA	1080
ATCGCCACCC CTACCGTTT TGAACCGACG TCCAATCCCA TAATTCTCAT AGGTTATAGA	1140
TCGACTCCTT GTCCTTTGAG GTAGTAGCGA ACCAATTCCT CAACGATTTC ATCAGCTCA	1200
TACTTACGGA TTTGATTTG TGCAATTATTA TAACGAGGAA CGTAGGCAGG GTCTCCACTC	1260
AATACGTAAC CTACGATTG GTTAATTGGG TTGTAaCCCT TATCGTTCAA CGAAGCATAA	1320
ACATCTGTCA AAGTTTCGCT AATTCTTTTT TTATTGGAAT CGTCCAATTT AAAACGTACT	1380
GTTTCTTCAG TAAATCCCAT TCTAACACCC TCTTCTCTTA GAATAGTACC ATTATAGCAT	1440
AATTCCTTAC CTTCTACAAT TCAGGCAGTC TATTTATTG GATTTCTAT TGTCTGTCTG	1500
CGCCATTTC CAATCTATCT GAAATATATT TGCTTGGTTC ATTTTTCAAA AGATTTTCCA	1560
AACCAATATT CTTCAGATGT TCCAACTGGG AAGCCTTCTT GACATCCAGA ACTTGAAAT	1620
CAAACTAGT CGTTGTTTGA AGTTCCGTTG CGCTCAATAG TTTTGTTC AAGTTTGAAAC	1680
CTGCCAATTT ACGAGCTTCA ATGATAGACT TATCCTTCTC CTCCGCTTCA AGAAGAGCTT	1740
TTTGAGTTTC CTCCACTCCA TGTG	1765

(2) INFORMATION FOR SEQ ID NO: 283:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1346 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1313

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 283:

CTTATCCATT CACTTCTTG TCTGTTATTC TATAAATCTT ACTCCTAAGT ATACCACATT	60
TGCCCCCTAGA TGTGAACGAG AGAAACGCTC TAGACATTGC CAAGAAGGAA AAAAAAGGT	120
ACAATGTAAC AAAATCAAGG GAGGTCTGGA ATGAAGAAAC AAAGCAAGTA CAAAGAGGTC	180
GTTTCCTATC TGAAAAATGG TATCGAGTCT GGACGATTTC CGACGGGTAG TCGCCTGCCT	240
TCTATCCGTC AACTGAGCCT TGACTTTCAC TGCAGCAAGG ACACCATTCA ACGAGCCCTG	300
CTGGAATTAC GGCACGAACA ATACCTCTAT GCCAAGCCTC AGAGTGGCTA CTATGTATTA	360
GAACAAGGGC AACATCAAGA CCTAGAAATC GAGGTTACCG ACGAACATGC CAGTGCCTAT	420
GACGATTTC GACTCTGTGT CAATGAAACC TTGATTGGCC GAGAAAACTA CCTCTTCAAC	480
TACTATGACA ATCAAGAAGG ATTAGAAGAC CTAAGACAGT CCATTCACAA ACTCCTCTTT	540
GAGCAAGCTC TCTACTGCAA GGCTAACCAA CTAGTACTGA CTTCTGGAAC CCAACAAGCC	600
TTGTTTATCC TCTCTCAAAT ATCCTTTCCT AGACAAGCCA AGGAAATCTT GGTGGAACAG	660
CCAACCTACC ATCGGATGAA TCGCCTCTTG ATTGCACAGG GGCTGGACTA TCAAACGATT	720
GAACGAGGCA TTGATGGGAT TGACTTGGAG GAGCTGGAAG GCCACTTCAA AACAGGAAAA	780
ATTAAGTTTT TCTACACCAT TCCCGATTT CACTATCCCC TGGGACATTC CTATTCTGAG	840
CAAGACAAAC GATCTATCTT TAACTTAGCT GCCAAGTATG ATGTCTATAT CGTAGAGGAC	900
GATTATCTGG GTGATTGGA CTCCAAGAAG GGCCAAACCT TCCACTATCT TGATACAGAG	960
GAGCGTGTC TTTATATCAA GTCCTTCTCG ACCAGCCTTT TTCTGCECT TCGTATTACA	1020
GCACTCATTC TTCCAAATGC TATCAAAGAA GCATTGTGG CCTACAAAAA TATCCTAGAC	1080
TACGACAGCA ACCTCATTAT GCAAAAGGCC CTGTCACTCT ATATTGACAG TCAATTGTTT	1140
GAATAAATC GTTGGGCTCG CTTGACCAAT CATGAATCTT ACCAAAAACA AATCGAGGAA	1200
AGGATAACTA AAACACCTTG TCCCTTCCT CATTATTCCC TACACGATGG YTTATTGCTA	1260
GACCTGAGAC AGTATCCTAA AATCGCCAGT CTCAAACACA GTCAACTGGG CTTGGACTTC	1320
TTTGAAGAGG CCTATTTAAG CACCTG	1346

(2) INFORMATION FOR SEQ ID NO: 284:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 900 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

1314

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 284:

CTATATTCAG AATATGCCAA AAATTCGGAA TGGTATAAAT TTGCGGAGGG TTCATTTGAC	60
ATATTTAGAA AACTCCCCCA AAGAATTAAT TTTAAGAAAG ATTTTCTAG AATTTGGCC	120
CCCTTTATTA TTAATTGCT TAAATTAATC AATAATTATC TAGAGAATAA AGAATACGAG	180
TGGATTGACA AGAATGGAAA TATTTTTC TCTCTAGTAT TTTATTTAGA AGATTTAATC	240
TATCCTTGGA TTGTTAAACC TTTGGTTTTA GAGATAAATT CATTCGCTGA AAAAGGTTTA	300
CTTGAAGGGG AATCGGAGCA GCAACGTAC AAATATTTTA TAACATTGTT TGACAAGGAA	360
GAGAATATAT TAAATTTTTA TAACAAATAT CCCGTTTAC TGAGGCAAAT ATCGGAGTCT	420
TGTCTCGGT TCTATACTTA TTTTATAGAA ATTTTATCAA ATTTAGAAAA TGATTTTAGT	480
GTGCTAGAAG AAGAATPAGG GCTAAGGGG AAATTAAATG ATATAAAAT TGGAAAGGGT	540
GATACACACA GCCAAGGAAA AACTGTTTGT ATACTCTTCT TTGATGACGC GAAAATTGTT	600
TACAAGCCTA AAAATTTAAT AATCAATAAC TCACTAAATA CTATTGCTGA GTATATCCGA	660
AAGGTTGATG AAAAAATTAG GATAAGAATA CCTCGAACTA TTGCTTATTC GGATCACAGC	720
TATGAAGAAT TTATTGATTA TCTACCTCTA GAGCAAAAGA AAAATTACC TGAATATTAT	780
TATAATTTTG GTGTGCTTT AGCATTATA TATTTATTTA ATGGGAGTGA TATACATTTT	840
GAAAATTTAA TTTCTATGG AGATATGCCT GTAATAATAG ACTTTGAAAC AATGTTACGG	900

(2) INFORMATION FOR SEQ ID NO: 285:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 862 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 285:

TTATTTAGCA GAGGCAGTTT TAAATGTGAA GGATTGGTC AGTCAAACAG TTTTATCA	60
GCAGATTATT GGTTTAGAAA TCCTATCTCA AACGGATACA GAGGTCGTTT TGGGACTTGG	120
AGGAAAAGCC TTGGTACACT TGATTCAAGC ACAAGAGGGT GGAGAAGTAA GGGAACATTA	180
TGGTCTTTAC CATCTGGCTA TTCTTTTGCC GACACGAAAG GCTTTGGCGG ATGTCTTGAA	240
GCACCTGACG GATTTACAGA TTCTCTTGT TGGCGGTGCA GATCAGGTT ACAGTGAGGC	300
CCTTTACTTA GAGGACTTGG AGGGAAATGG CATTGAACTC TATCGAGATA AGCCAGTTTC	360
CACATGGGAT ATTCGAGAAG ATGGACGTAT TATCGGGGTG ACTGAAGTCC TTGCGGCTCA	420
GGATATCTAT GAGTTGGGGG AAAGAGTAGA GCCTTTTATC CTAGCAGAGG GTACGAGAAT	480

1315

GGGGCATATT CATCTTTCTG TCAAGGATAG TCGAAAGTCC AGACAGTTTT ATCAAACGGT	540
GTTAGGGCTC GAGGATAAAT TCAGTGTGCC TAGTGCTAGT TGGATCGCAG CTGGGGACTA	600
CCATCATCAT TTAGCAGTCA ACGAATGGGG AGGAAAAGGT CTGGATCCGC GTAAACAAGT	660
CCTACCAGGT TTAGCCTACT ATGTCATCGA AGTCGCACAT AAAGAAGAAC TGTTAACGAT	720
TGCCCAACGA GCACAAGAAG TTGACGCACC AATCAAATGG ATGACATCGA TCCAATTGGA	780
AATCACAGAC TCAGATGGCA TCGTGACCCG TATTCGTTTA GCTAGATAGA TGGTATGTGA	840
TGAAGGTAGA GCATCAATTG TA	862

(2) INFORMATION FOR SEQ ID NO: 286:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 650 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 286:

TCGTTTACAA GATCGCTAAA ATGCATCTCA TGATCGCGAC CACGAATTC AAGATAGCAC	60
GCGCTACCTC AATCATAGAT AGTTCACTTT TTTCTTGCCC AGCAAATACT TCTAATTCCA	120
AAGCGTTTCT CCTCATTTAT ACTACTATCG CCAGAGCGAA CAGACTCTGA CCTCATTTTA	180
TCATTTACTC TTTATTTTAC GATAATTTTG CGGAATAGTC AAAGGTTAAG GGGGAGAAAG	240
TGGCAGGATT AGACTAATTC CAATATAAAA CTCATTCCTT TTTCTGTTGC TCCATTTTCC	300
ACAAATCCAA GCGACTTGAA ACACCTCCTA GAAGCATGAT TGTAGGTGTA GATTTTCTTG	360
ACTCTCAATT CTTTCCATCC TTTTACTCGA GCCAATTCAA TCAAAGCACT TAGAATCTTT	420
TTTCCAAGTC CTCGATGTTG GTAAGCGGAA TTCCCAATCA CAATGGGGAG ATTATCCTGA	480
GATAGTGTA TATCCCCAAT TGGAAACCAT TCTCCCTTCT CCTTGACTTC AATCCAAAAA	540
AGCTCACCAT GCCGATyCa ATAGGAATAC ATGGCTTCCA AGGTCGCTtG ACTGTAAGGA	600
AGCTTCACCC CATCTACGAG GtAAcCAAGT TCACATCCGT GATACCAAGC	650

(2) INFORMATION FOR SEQ ID NO: 287:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1119 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1316

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 287:

GATAGCAATC CGCTTCAGAA ACTTCTCGCT TACCTCTAAC TCCGATCGCT AGTTTGGGAG	60
AAGATACCTC CATCTCATA CTATCTGTTG GCTTTCAGG CTGTAAAAAC AACTTTTCTC	120
TTGCTACTTC CTGAAAATCT GAATCTTGCA GTTCTTTGCT TTCAAAATAG TCCTGTACTC	180
GCTCCACATC AAAATTCCCA GCTAAAGACA GAGACATGTT TACAGGTTTG TAAAACTTTG	240
TAAAATTTTC TTGCAATTA GTTAGATTGA TTTGGGAAAT GGACTCCTCA CTTCCTCACTA	300
TATCAGTTGC TAAAGGTGTA CCAGGATACA AATTCGCTAA AGTTGAAAAG AATAAACACG	360
AATCTGGATC ATCTTGGTAC ATTTCTCGTT CTTGCTGAAT AATATCCTGC TCTGTCAGAA	420
TGGAAGCTTC AGTAAAGTG GCTGATGTTA CCAATTCATC AAGTAAATCT AAATTTTCTA	480
AAAAATAATC CGTTGCTGAA AAAAGATAGT TTGTTTTTGT AAAGCTTGTA AAGGCATTAC	540
TATCTGCACC TAGACTCGTA AAAGCCGACA TCAAATCACT AGAATCTTCT CTCTCAAATA	600
ATTTATGTTT AAGAAAATGA GCAATTCCTC CAGGATATTG TTTTACATCT CCGTCAACTT	660
CTGTGACAAA CGTATCTACC GAACCAAAC GTACAGTGAC ACTCCCGTAA ACCTCTTTAA	720
ATTCCTTTTT AGGCAAAAGA GCAACTGTCA ATCCGTTGGC CAAACGAGTT CGATAAACCA	780
TTTCTTTTAC AGCTGGATAG TATTTTCTCT CAAAACAAC CTTTGTCATT CTATTCCTTC	840
CATAAAGTAA ATCGCTTGTA GTTTCACATT ATTAGCTACT CTACAAATAG CATCTTTGTC	900
AATTTGTTCA AGCTTTGCAA TCCAACTTTT AAAGCTGCT GAAGATTTTC CAAATAAGGC	960
ATTTTGATA GCACGTTCAA TCAATGAAGA ATGATTATCT TGAGAAAGTA ACAACGACCA	1020
ACGAATCATT TCCTTGGTCT GATTAACTC AACTCTGTA AAAAAACCTT TTTTAAATC	1080
AAGCCGTGA TTATTCATCA ATTTACGAGC CTGGTTACG	1119

(2) INFORMATION FOR SEQ ID NO: 288:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 540 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 288:

ACGCCCTCGC GGGGACATGA CGAATTCCTC GTTCATCACG AAGGCCGCCG AGGAGTGGGG	60
GGTGCCGTCC AAGTCAAAAG CGGCCCCACA TCGATTCACT TCCCCGACGA ACAGCCCTTT	120
CCCCAGCGT TCCTGGCTTT GCAACCGTTT CACAACAGCC TCGTAAAGTA GGCCGGACAA	180
GGCAGACGGA CTCAAAGGA GTTCTTCCAT CTGCAAGTGC GCCTGCGTTA TGTGATCCCC	240

1317

GTCTTTTGCA TGTGTGTGGC ATGAATGCTG TTCCCAATCC CACTCCAGAA CATTCTCCTC	300
AAAAGTGCGC AACGTCGCCC TGAATGAATC CTGCCTTGTA GTCGTGACCA TTCCTATGAA	360
GGGTCGCAGA GGATTTTCCC CGAGTGCAAG CGCATCCTCC GGCTCAAATC GGGTGCAATT	420
CACAGTCCCG CTCAACGCTA GCCCGATCCC TTTTGGCAT GGTGACTCAA GCGTCCTTTC	480
AAACAAAAGC TCCTCATCCG CTCCAACCGG CCCGACGTAG ACGCGTAGAC CGAAGTCGTC	540

(2) INFORMATION FOR SEQ ID NO: 289:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1949 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 289:

AAAGAATTCG ACCAATTCAA GGTGAGGCA TCGCAAATA TGGACTGTTC CCCCCTCAGT	60
TCTGGACAGA AAACGGGATA AGGTTGGCTG TGAAGCAAGC TGCCCTCCTA CCAACAATTT	120
TGGAAAGTAG GCATCAGCTG ACAATTCCTT ACAAGCATAG TCCGTTCCAT AACCTGTTAA	180
CAGTTGAAAG AGGAACTGGA CAAGGATATC TGAATCCGAA TAACGACAGT AGCGGCGTTG	240
GTCAATTCGTT ACTAAATACT TAGAAATCCG CTCTTTTAGT TTCAACTGGG AAAAAAGTTC	300
CTGAAAAAAG ATAAGACCAC CATACTGGGT TAAATGACCT CCATCGAAAG ATAGTTGGTA	360
AAAAGACTTG TTTTGAAGT GATGATTTGG TAAACTGTTC ATGTGAGTTT CCTTCTTTT	420
TGTGTTTTTT TCTACACTTA TACCATAAAG GGGAACTCT TTTTGTCTA GTAAAAACA	480
CCCATTGGGT GAAAAAGAA ACCATCCAGG ATCTAAGCTA AGGCAAGGAT TCTGGATGGT	540
TTTTAGATTT GGGGTGAATA ATTGGGTTT TACAATATCA ACTCCCATGA TAGTCATGAG	600
ATGACTCTTC ACGAATTGAC GTGATGACTG TCCTTCCTTT TGCATAATTA CCTCCGAAAC	660
ACAAAAAAG GGGTAGACAA TCTAGTGTCT ACCCCGAAA GTTTATTAAA AAAAAATCC	720
TGCCAAAGAA TTTTGGCAG GAAACCAAAT CAATTATCA GTTCTATCA ATCGCTTATC	780
GCTCTCAAAG ACTGGTAAAT AGGGATCCG CAATCAAAT GCGATACTCT ATTATTAAAG	840
AGTAACTGAA GCTCCAGCTT CTTCGAATTT AGCTTTGATT TCTTCAGCTT CTGCAGTTGC	900
AACGCCTTCT TTAACAAGTG CTGGTGACCC GTCAACAAGT TCTTTAGCTT CTTTAAGACC	960
AAGACCAGTG ATTTACGTA CAACTTTGAT AACGCCAAT TTTTGTGCG CTGCAGATGT	1020
CAATTCAACG TCGAATGAAT CTTTAGCAGC ACCAGCATCA GCTGCATCAG CTGCAGCAAC	1080

1318

AGCTACAGGA GCAGCTGCAG TTACACCAAA TTCTTCTTCG ATAGCTTTTA CAAGGTCGTT	1140
CAATTCAAGG ATTGAAGCTT CTTTAATTTT AGCAATAATG TTTTCAATGT TCAATGCCAT	1200
TGTTATTTC TCACAAATAAG TTTTAAATTT TATAATAGTT TTTTTCGTAG CTAGksTACG	1260
CTGTGTAGCT TAAGATTAAAG CCGCGTCTTC TTTGCTTTCT GCAACCGCTT TGAATGCAAG	1320
AGCAACGTTG CGCACTGGCG CTTGAAGTAC AGAAAGGAGC ATAGAAAGAA GTCCTTCGCG	1380
GTTTGGAAGA GTTGCAAGTG CAAGAATCTC TTCTTTAGAT GCGACAGCGC CTTGCAATTGC	1440
ACCACCTTTA ATTTCAAGTG CTTGAGCGTT TTTAGAAAAG TCGTTCAAGA TTTTCGCTGG	1500
TGCGATAACA TCTTCATTAG AAAATGCTAC TGCAGATGGT CCAACAAATA CAGATGCAAG	1560
ATCTTCAAGA CCAGCTTTTT CAGCTGCACG ACGCAAGATT GAGTTTTTAA TAACTTTATA	1620
CTCAACTTCG CTTCCACGAA GCTCACGACG AAGAACTGTA TCTTGCTCAA CTGTCAAACC	1680
ACGAGCGTCT ACAACGACGA TAGATGCAGC AGCTTTCATT TTTTCAGCTA TACGTCAACT	1740
AGTTCGCTT TTTTAGCAAT AATTGCTTCA CTCATTAGTG TGTTCACCTC CGTAATTATT	1800
TTGCTTGGGG AATTTTTTCAA AAAGAAAAAC GCGCCCAATC CTAGACACGA AAGTACAATA	1860
CGCTTCTTTT TACATGATAC GTTTTGTCTT CGGTAGGATA TTTATGAGTC GAGCTCCCCT	1920
ACTGTCTTAG GCAGTTTTTT TAGATACGG	1949

(2) INFORMATION FOR SEQ ID NO: 290:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1023 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 290:

GGACTGTTTG ATCTTATACA GTAGCTGCTT GATCCAAGCT TTCACCGATA GCGGCTAGGC	60
GCTCGATAAC TTCAGCTTGT GTCAATTCAT TTTTGAAC ATAGCGGTTA CGTGGGTGAA	120
CACGGCACTC GTGTGAGCAT CCACGAAGGT ACTTGTCTT ATTTCTTCT GATGTCAAGA	180
TACGACGGTT ACAGAATGGA TTTCCACAGT TGACATAACG TTCACATGGT GTTCCATCAA	240
ACCAGTCTTT CCTACGATA GTTGGGTTGA CATGGTTGAC ATCAACGGCA ATACGCTCGT	300
CAAAGACGTA CATTTTCCCA TCCCAAAGCT CACCTTGAAC TTCTGGGTCT TTACCGTAAG	360
TTGCGATTCC TCCGTGCAAT TGGCCGACAT CTTTGTAGCC TTCACGGACC ATCCAGCCTG	420
AGAATTCTCT ACAGCGAAG CCACCTGTAC AGTAAACCAC GACACGCTTG TCCATGAATT	480
TTTCCTTGTT ATCACGGACC CATTTGTGGA ACTCACGGAA GTTGCGAATA TCTGGGCGAA	540

1319

TAGCTCCACG GAAATGTCCT AGGTCGTACT CATAATCGTT ACGTGTGTCA AGGACAACGG	600
TATCTTTATC AAGAAGCGCT TCTTTGAACT CTTTGGAGA CAAGTAAGCA CCTGTTGTTT	660
CAAGTGGGTT GATGTCATTG TCAAAGTCGT TGTCTTCCAA ACCAAGGTGG ACAATTTCTT	720
TCTTGTAGCG AACAAACATC TTCTGAAGG CTTGTTCAAT TTCTTCGTCA ATCTTGAACC	780
AGAGTCTTTC CATTCCTGGA AGGCTGTGAA CGTAgTCCAT GTATTTTGA GTTGTTTCAT	840
AGTCACCTGA AACTGTTCCG TTAATTCCTT CGTCAGCGAC TAGGATACGG CCTTTAAGGn	900
CGATTGATTT ACAGAAAGCC AAGTGGTCTG CAGCAAATG CTCTGCATTT TCAATTGGAG	960
TATAAAGGTA GTAAAGTAAG ACACGAATAT CTTTgkCaw AAGATTTGTA TCTCTTTATC	1020
TAT	1023

(2) INFORMATION FOR SEQ ID NO: 291:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3831 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 291:

ACTATGAACA AGACCCAGAA AAAGTAGCCT TATTTCTTAA GAATTTTAAT AGTTTAAAGC	60
ACCTAGCACC TGTTTAGATT GACGAAACAG GATTCGATAC TTATTTTAT CGAGAATATG	120
GTGCTCATT AAAAGGTCAA TTAATAAGAG GCAAAGTATC TGGAAGAAGA TATCAGAGGA	180
TTTCTTTGGT TGCAGGTCTA ACAAATGGTG AATTAATCGC TCCAATGACT TACGAAGAGA	240
CGATGACGAG CGACTTTTTT GAAGCTTGGT TTCAGAATTT TCTCTTACCA ACATTAAACA	300
CACCATCGGT TATTATTATG GATAATGTAA GATTCATAG AATGGGAAG CTAGAACTTT	360
TATGCGAAGA GTTTGGGCAT AAACCTTTTAC CTCTTCCTCC TACTCGCCT GAGTACAATC	420
CTATTGAGAA AACATGGCT CATATCAAAA AGCACCTCAA AAAGGTATTA CCAAGTTGCA	480
ATACCTTTTA CGAGGCTTTT TTATCCTGCT CTTGTTTCAA TTGACTATAT TAGAGGCGAG	540
ACATTTTTCG GTTCTTTGTC AACTGTAGTG GGTGAAGAA AGCGAAGATC TAGAAAGGAC	600
AAATTCGTC CTTCTTTTTT TGAAGTTTTT AAAGTTCCTA AAACCAAAGG CATTGTGCTT	660
GATAAGTTTG ATGAGATTAT TGGTGGCTTC CAGTTGGCG TTGAATAAG GTAATTGAAG	720
GGCGTTGACG ATTTCTCTT TATCTTTGAG GAAGTTTTTA AACAAAGTCT GAAACAGAGG	780
TGAAAAGCA AGAGCTGATA GAGATTATAG TGGTGTTTAA AGTCTTCGGA ATAGCTCAAA	840

1320

AGTTTATCTA GAATTTCTTT ATTAGTCAAG TGCATACGAA AAGTAGGGCG ATAAAATCGT	900
TTATCACTCA GTTTCGACT ATCTTGTTGA ATGAGCTTCC AGTAGCGCTT GATAGCCTTG	960
TATTCATGGG ATTTCGGATG ATGGCTTG TGCTGCTCTC AAGAACAGTT ATGATATTGA	1020
GTTTATCAAA GTCCTGAGCA ATAAAGCTCA TCTCCATCTC CCGATTGAAA CAGTCACTCC	1080
CCGGACTGTT TCAACsTCCT AGGACATAAT CTCAGGAAGA CGCGAAAAAT CATGCTCAAA	1140
GTGAAAATCA TTGTTCTTGC GAATGACAGT TGAAGTTGAA ATAGACAACT GATGATCAAT	1200
GTCGGTCATA GAAGTCTTTT TAATTAGCTT CTGAGCAATC TTTTGTTGA TGATACAAGG	1260
AATTTGATGA TTCTTCTTGA CGATAGAAGT CTCAGCGAGC TCCATTTTTG AGCAATGATA	1320
GCACTTAAAA CGGCCTTTTC TAAGAAGAAT TCTAGTTTGA ATTTMTTAT ACTAGAAAA	1380
CAGAACCATA ATACCTATAT AAAAATATTA TAGTTCTAAT AGGATTACC CAAAAGTTT	1440
AAGGCGTCT TTTTAGAACT TTAATTGTTT GAAATTAGG TAGCAAATTT GTTCTATTT	1500
TGTCAACTTT TCCTATTTTT ATCTTGTTGA GGCTGGTATT TTAACAATTC AGGAATTGAT	1560
AGTGAATGTG TAAAATTTTT TGTTAGAATA AGTTTATAAA AAAGAAAAGG AGTATTGAT	1620
TATGTTACAA AAAATTTATG AGCAGATGGC TAATTTCTAT GATAGTATTG AAGAAGAGTA	1680
TGGTCTACA TTTGGTGATA ATTTTGACTG GGAACATGTT CATTTTAAAT TTTTAATTA	1740
TTATTTAGTG AGATATGGCA TTGGTTGTCG TAAGGATTTT ATTGTTTACC ATTATCGTGT	1800
TGCTTATCGT TTGTATCTTG AAAAATTGGT AATGAATCGG GGTTTTATTT CTTGTTGAGG	1860
TAATTTTAGT AAATTTCCGA ACTAATTTAC TCTTTTATGG AAAGATGATA GTAAATAGCT	1920
AGTAATTTTT CTAATCATTT TTTTAATAGT TGGAAATAGC AAATCTTTCT ATTGTTTCTT	1980
CTTGATAAAA AGGCGATTTT TTATTATAAT AAATTGTAAG ATATAATTGC AGGTGAGACT	2040
CCTGCCATGT ATGTGAGAAA GGAAGAGCCT GATGGCTCAG ACAAGATTAT GACTTCAGTT	2100
GTTGTTGTAG GTACCCAATG GGGTGATGAA GGTAAGGGA AGATTACAGA CTTCCTTTCA	2160
GCGAATGCAG AAGTGATTGC ACGTTACCAA GGTGGTGATA ATGCTGGTCA CACGATTGTG	2220
ATTGACGGTA AGAAATTTAA GTTGCACTTG ATTCCATCTG GGATTTTCTT CCCTGAAAA	2280
ATATCTGTCA TTGGGAATGG TATGGTTGTA AATCCTAAAT CTCTGTGAAA AGAGTTGAGC	2340
TATCTTCATG AGGAAGGTGT AACAACTGAT AACTTGCCTA TTTCTGATCG TGCGCATGTT	2400
ATTTTGCCTT ATCATATCGA GTTGATCGC TTGCAAGAAG AAGCTAAGGG CGACAATAAG	2460
ATTGGTACGA CAATTAAGGG AATTGGTCCA GCTTATATGG ACAAGGCTGC TCGTGTGGA	2520
ATTCGTATTG CAGATCTTTT AGATAAAGAT ATTTCCGTG AGCGTTTAGA ACGTAACCTT	2580
GCTGAAAAGA ATCGTCTTTT TGAAAAATG TATGACAGTA AAGCGATTGT TTTGATGAT	2640

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ATTTTGAAG AATATTACGA ATATGGTCAA CAAATCAAGA AATACGTGAT AGATACATCT	2700
GTTATCTTGA ATGATGCGCT TGATAATGGC AAACGTGTGC TTTTGAAGG TGCACAAGGT	2760
GTTATGCTAG ATATCGACCA AGGTACTTAT CCATTGTGTA CGTCATCAA CCCTGTAGCT	2820
GGTGGTGTGA CAATTGGTTC TGGTGTCCGT CCAAGCAAGA TTGACAAGGT TGTAGGTGTA	2880
TGTAAAGCTT ATACGAGTCG TGTAGGAGAT GGTCTTTTCC CAACTGAGTT GTTTGATGAA	2940
GTGGGAGAAC GTATCCGTGA AGTGGGTCAT GAATATGGTA CAACAACCTGG TCGTCCACGT	3000
CGTGTAGGTT GGTTTGACTC AGTTGTGATG CGTCATAGCC GTCGTGTTTC TGGTATTACT	3060
AACCTTCTTT TGAACCTCTAT TGATGTTTTG AGCGGTTTGG ATACTGTGAA AATCTGTGTG	3120
GCCTATGATC TTGACGGTCA ACGTATTGAC TACTATCCAG CTAGTCTTGA ACAATTGAAA	3180
CGTTGCAAGC CTATCTATGA AGAGTTGCCA GGTGGTCCAG AAGATATTAC CGGAGTTCGC	3240
AATTGGAAG ATCTTCCTGA GAATGCGCGT AACTATGTTT GTCGTGTGAG TGAATTGGTT	3300
GGCGTTCGTA TTTCTACTTT CTCAGTAGGT CCTGGTCGTG AACAAACAAA TATTTTAGAA	3360
AGTGTTTGGT CCTAAGAGAT TTTTAAGATT TGTTTAAGAT AGGTCGGGTA TACTATAGAC	3420
GGTTACAAGA AGACCTCCTA ACTTGTGTGA ACAAATATCC TAAACTTTTC TTTTTCATAA	3480
TAATCTCCCT ATAGAGTCAC CGCATTCGGT GGCTTTTTTT GTGTTGGGAT TCATGATATA	3540
ATAATAAAT CGATAAGTAG GAAAAGAGAA AAGAGATGTA TTATACGCTT GAAGAAAAG	3600
AAGTCTTTAT GAGGGAGGCT TTGAGAGAGG CTGAGATTCC TCTTGAACAC GATGAAATTC	3660
CAATTGGTTG TGTGATTGTC AAAGATGGGG AAATCATTGG TCGTGGGCAT AATGCGCGTG	3720
AGGAATTACA GCGAGCGGTT ATGCATGCGG AAATTATGGC TATAGAGGAT GCGAACTTGA	3780
GTGAGGAGAG TGCGCTTGCT GGATTGCACA CTTTTGTGA CCATTGAACC G	3831

(2) INFORMATION FOR SEQ ID NO: 292:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1441 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 292:

CCGCTGTTCC AACCGCAACA TACCATAGTC CGTACGGGAT TCGAACCCGT GTTACCGCCG	60
TGAAAAGGCG GATGACTTAA CCCCTTGACC AACGGACCTG AGTTGTTATT TTCAACTCTT	120
ACTATTATAC AGTCTTTTCA AACTTTGTCA ACTACTTTTT CTAATTTTGT TTTATTTTTT	180

1322

CAACTTATAG TAAAAAAGC CAGAATTATA CTGACTCTTC TATCGCTCAT TAAACTTAGA	240
AGCACGTTCT TTTCCCCACC AATAAGGGAT TAGTTCTGCG ACTTTAACTG TTTTCTTAT	300
ATTATAGTCC ATCATGAATT CTGCATCTTT ATTTTCAGCA TTAAGCTCTA AAAGGAATTC	360
TCTACAAGCA CCGCAAGGCA TGGCTGAACT TCCACCATAA GGTGGTTTGT CTCGAAAGGC	420
TAATACTTTC TTAACCTTAG TTTGTCCTGA AAATTGGTAC ATATTGAAGA GGGCCGCCCG	480
TTCTGCGCAG AGATGGAAAA CACCACAGGT TCCCTCCATA CAGAATCCTG TAAATATTTG	540
TCCATCTCCT GCTTCTACTG CAGCTACAAC ATGATTGGCA TAAACAAAGT CTGATACTTC	600
ATGTGGATTG TATAGTTTCT GTGCTTCTTC GTACATCTTT TCCCAGATGT CCATTATTGT	660
ATCCTCTTTA TTTAGAGATT TCTTTTAGCA TGTPTTCGAT ATGCTGAATT GATTTTTCAC	720
GTCCAAGCAA GAAATTGTA TCTGGTAATT CTGGCCCATG CATTTCCGCT GAAACTGCGA	780
TACGAATAGG CATGAAAAGA TTTTCCCTT TAATACCTGT TTCTTTTGG ACTGCTTTAA	840
TTTGTGGGAA GATATTTTCT GTCACAAATT CATCATCTGT CATCGCTTCA AGTTTGCTT	900
TGAATGCTTC AAGAACTGTT GGAAGTGTTC CACCCGTCAT GACTTCGCGC TCTGCTTCTG	960
TCAATTCTGG GAAATCTGAG AAGAAAAGAT CTGTCAATGG GATAATCTCA TCTACTGATT	1020
TCATTTGTGG TTTATAGAGC TCAACTAATT TTTCAGCCTT GTCAGTCAA CGGCCTGCTT	1080
CCTCTAAGAA TGGTTTGGCC ATTTCAAAGA TGGTTTCAAG GTCTGCATTC TTGATATAAT	1140
CATTGCTCAT CCAGTCTAGT TTTTCTGAT CAAAGGCTGC TGGTGACTTG CTGAGGCGGT	1200
TTTCATCAA AAGTTTAATG AATTCTTCAC GAGAGAAAAT CTCATCCCCA CCACCTGGGT	1260
TCCAACCAAG AAGAGCAATA AAGTTAAAGA CTGCTTCTGG AAGGTAACCT TTCTTTGCGT	1320
AATCTTCGAT AAATTGAAGT GTATTAGTAT CACGTTTGA TAACTTCTTA CCAGTTTCAG	1380
AGTTGATAAT CAAGTGTAT GTGACCGAAC TCTGGAGCTT CCTCAACCTA AGAGCGGGTA	1440
T	1441

(2) INFORMATION FOR SEQ ID NO: 293:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4398 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 293:

CGGCTTATGT ACTGGCAATC TTTCTACGTA AGCGAAACGA GGGGAGATTA GAGGCGCTAG	60
AAGAAAAAAA AGAAGAACTA TACAATCTTC CAGTAAATGA TGAAGTAGAA GCTGTAAAAA	120

1323

ATATGCACTT GATTGGACAA AGTCAAGTGG CTTTCCGTGA ATGGAATCAA AAATGGGTCG	180
ATTTATCTCT CAACTCTTTT GCCGATATTG AAAATAATCT CTTTGAAGCA GAAGGCTATA	240
ACCATTCAATT TCGTTTTCTC AAGGCCAGTC ATCAAATTGA CCAAATTGAG AGTCAAATTA	300
CTTTGATTGA AGAAGATATT GCGGCAATTC GCAATGCTTT GGCAGACTTA GAGAAGCAAG	360
AATCTAAAAA TAGTGGTCGT GTTCTTCATG CTTTGGATTT ATTTGAGGAA CTTCAGCATA	420
GAGTTGCTGA AAATTCAGAA CAGTATGGTC AAGCCTTGA TGAAATTGAA AAACAATTAG	480
AAAAATATCCA ATCTGAATTT TCACAATTTG TAACCTTGAA TTCATCGGGT GACCCTGTGG	540
AAGCCGCAGT GATTTTGGAT AATACAGAAA ATCACATTTT GGCTTAAGT CATATTGTGG	600
ATCGTGTTCC AGCCTTGGTT ACGACGCTTT CTACAGAATT GCCAGATCAA TTACAGGATT	660
TGGAAGCCGG TTATCGTAAA CTAATTGATG CTAATTATCA TTTGTGTGAA ACGGATATTG	720
AAGCGCGTTT CCACTTGCTT TATGAAGCAT TCAAGAAAAA CCAAGAGAAT ATTCGTCAGT	780
TGGAATTGGA TAATGCCGAA TATGAGAATG GACAGGCACA AGAGGAAATC AATGCCTTGT	840
ATGATATTTT TACTCGAGAA ATTGCTGCTC AGAAAGTAGT GGAAATCTA CTGCAACTC	900
TTCCAACCTA TCTTCAACAT ATGAAAGAGA ATAATACTTT ATTGGGAGAA GATATTGCAC	960
GTTTGAACAA GACCTATTTA CTTCTGAGA CAGCTGCAAG CCATGTTCTG CGTATTCAGA	1020
CAGAATTAGA GAGTTTGTAG GCAGCTATTG TTGAGGTAAC TTCAAATCAA GAAGAACCAA	1080
CCCAAGCTTA TTCAGTTCTT GAAGAAAATC TTGAGGATTT ACAAACTCAA CTAAAAGATA	1140
TTGAAGATGA GCAAATTTCA GTTAGTGAGC GCCTGACACA AATTGAGAAA GATGATATTA	1200
ATGCACGTCA AAAGGCCAAT GTTTATGTCA ATCGTCTCCA TACTATCAAG CGATACATGG	1260
AAAAACGCAA TCTGCCAGGT ATTCCACAAA CTTTCTTGAA GTTATTCTTT ACGGCAAGCA	1320
ATAATACCGA GGATTTAATG GTTGAGTTAG AACAAAAAT GATTAACATT GAATCTGTTA	1380
CCCGAGTTCT TGAAATTGCA ACGAATGATA TGGAAGCTTT AGAAACGGAA ACTTATAATA	1440
TTGTACAATA TGCAACTTTG ACAGAGCAAC TCTTGCAATA TTCTAACCGC TATCGCTCAT	1500
TTGATGAACG CATTCAAGAA GCATTTAACG AAGCTTTAGA TATTTTGTAA AAAGAATTTG	1560
ATTATCACGC TTCATTTGAC AAGATTTCTC AAGCATTGGA AGTGGCAGAG CCTGGTGTA	1620
CCAATCGCTT TGTTACCTCA TATGAGAAAA CACGTGAAAC GATTCGTTTT TAATAAAAGA	1680
AAAAGATTTT ATTGTTGTAG GAGCAGAATC AAATCTTTT CTATAGTTGT GGGGAGATTT	1740
ACTTCATTTT CTCCTGAGAT TGAGTTTTTG CCCAGCCGAT TTATCCACTA CCTCAAAACA	1800
GTGTTTTATA CTCTCGAAA ATCTTTTCAA ATCACGTCAG CGTCGCCTTA CCGTACTCAA	1860

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GTACAGCCTG AGGCTAGCTT CTTAGTTTGC TTTTGTGATTT TCATTTAGTA TTAAAGTGAT	1920
TTCCGCCAGTC TTATCTGCAG CTTCAAATCT GACTTTTGAG TAACTTGGTA ACCGTCCAAT	1980
AACGAAGTCT ATTGAAAAAT CTCCAGACTA GAGAAGTAC GGATAGTTCC TAATCTGGAG	2040
ATTTCCTATT TGCACCTTTC TTGTACAAC TTAGTCCACG GTAAATAGAC CTCTAAAACC	2100
TCCTTGTTTA CGAGAGTTTC CTCGTTTGA AGACATCTA GAAGATAGGA TAGATATTTT	2160
TCGCTATTTA TACTAGACTA AAATCAAAAA GCATTATATA ATAGTGATAT GAAATCAACT	2220
AAAGAAGAAA TCCAAACCAT CAAAACACTT TTAAAGACT CTCGTACAGC TAAATATCAT	2280
AAACGCCTTC AAATCGTTCT ATAGTAAAT GAAATAAGAA CAGTACAAAT CGATCAGGAC	2340
AGTCAAATTG ATTTCTAACA ATGTTTTAGA AGTAGAGGTG TACTATTCTA GTTTCATCT	2400
ATTATATTTT GTCTGATGGG CAAATCTTAT AAAGAGATTA TAGAACTTTT ATAGTAGATT	2460
GAAATAAGAT GTGAACAACT CTATCAGGAA AGTCAAATTA ATTTATAGAA ATATTTTAGC	2520
AGCCAAGGTG TACTGTTATA GATTCAATAC ACTATAGACT GTAATCAAAC AACGATTGG	2580
CGAAATGTAA AAAAATATGA GGAGTTCGGA CTCGACTCTC TCCTTCAAGA AACACGTGGT	2640
GGTCGTAACC ATGCATATAT GACAGTTGAG GAAAAGAAAG TCTTTCTTGC CCGCCATTTG	2700
AAGGCTGCAG AGGCAGGAGA ATTTGTTACA ATTGATGCCT TATTTTCAGGC TTATAAAAAG	2760
GAGTTAGGTC GTTCCCTACAC ACGTGATGCC TTCTATCAAC TGTGAAAGTG CCATGGTTGG	2820
CGAAATATTA TGCCACGTCC AGAACATCCT AAGAAAGCAG ACGCTCAAAC CATTTGTCGG	2880
TTAAAAATA AAATCTCAAT TCAAGAAGAA AAGAAAGCGC TTAAAAACCA GTAGACGTTT	2940
TCGTAAGGTT CGCTTGATGT ACCAAGATGA GGCTGGTTTC GGTAAGATCA GTAAACTGGG	3000
ATCTTGTTGG GCTCCAATAG GAGTAGGTCC ACATATCCAT AGTCACTATA TACGAGAATT	3060
TCGCTATTGT TATGGAGCTG TTGATGCCCC TACAGGCGAA TCATTTTCTT TAATAGCTGG	3120
TAGATGTAAT ACTGAGTGA TGAACGCCTT TTTAGAAGAG CTTTCACAAG CTTATCCAGA	3180
TGATTATCTT TTACTCGTTA TGGACAATGC TATATGGCAT AAATCAAGTA CCTTAAAGAT	3240
TCCGACTAAT ATTGGTTTTA CTTTATTCC TCCATACACA CCAGAGATGA ACCCCATTGA	3300
ACAAGTGTGG AAAGAGATTC GTAAACGTGG ATTTAAGAAT AAAGCCTTTC AAACCTTGA	3360
AGATGTCATG AATCAACTCC AAGATGTTAT ACAAGGATTG GAGAAGGAGG TGATAAAGTC	3420
CATCGTTAAT CGGAGATGGA CTAGAATGCT TTTTGAAAAC AGATGAGTAT AAAAAGAAAG	3480
TCCTCATTTT AATAGAAATC ACGACTTTCT GATGGATTTA TAGTAAATG AAATAAGAAC	3540
AGGACAAATC GATCAGGACA GTCAAATCGA TTTCTAACAA TGTTTTAGAA GCAGAGGTGT	3600
ACTATTCTAG TTTCAATCTA CTATATTTTT GGAGTGATAG AAAAGCCCTT CATAAGCTAG	3660

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TCTACTTGTT CAGGTGCGAG AGCTTTGACA TCTTTTCTG TACTTAGCCA AGTCAGTTT	3720
CCGTTCTCAA AGCGTTTATA TAGTAGCCAA AATCCTTGAC CATCCCAGTA AAGGGCTTTA	3780
AAGCGGTCTT TACGTCCACC ACAAAGAGA AAGACTTGAC CGGAGAAAGA ATCCAATTCA	3840
AAGTGGGTTT TAACTACATA GGCTAATGAG TCTATTCCCT GCCTCATATC TGTCTTGCCA	3900
CAAACAAGGT GAACTTGACC TAAATCACTT AGTTGAATTA TCATAGTACA ATACCTTTCC	3960
TCCGATAATT ATTTTATATC TAGTATACTG GAAGTTGGG AATTAGGATA GATACCTTGT	4020
TATGACGCGC TTACGTAAC TGAAC TAGC TGCCTAGTT GATCTTGCT TCTTCATTGA	4080
TTAGCAGTAG ATTTCAAAT GATAAAACG CATAGTATCA GGTATTGAAA TGTACTGCCC	4140
CAAAGTTAG ACAGAAAAA TCTAACTTTT GGGGTGTTT TGTATTGAAA TTAAGTTATG	4200
ATGATAAAGT TCAGATCTAT GAACTTAGAA AACAAGGATA TAGCTTAGAG AAGCTTTCAA	4260
ATAAATTGG GATAAATAAT TCTAATCTTA GGTATATGAT TAAATTGATT GATCGTTACG	4320
GAATAGAGTT CGTCAAAAA GGAATAATC GTTACTATTT TCCTGATTTA AAACAAGAAA	4380
TGATTAATAA AGTCTTAC	4398

(2) INFORMATION FOR SEQ ID NO: 294:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 718 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 294:

AGATTTT TAG ACTTTGCTT TAATCGTTT TTTTAGGGA TGATTGCGAC ACCTTCTTTT	60
GGCTATTAAC TTTAGCAGGA GGGATTATCC TTGGTCTAGC GCCGGCTAGT GCCACCTTGA	120
TGAGCTTATA TGCAGAACAT GGTTATAGCT TTCGGGAATA CAGTTTGAAG GAGGCTTGGT	180
CTCTTTACAA GCAAATTTT GTCTCAAGCA ACCTGATTTT CTATAGCTTT TTAGGTGTGG	240
GTCTAGTTT GACCTATGGT TTGTATCTCT TGGTGCAATT GCCTCATCAG ACCATTGTTT	300
ATTTGATTGC GACCCTTTT AATGTCCTAG TAGTTGCCCT GATCTTTTTC GCTTATACAG	360
TATCTTTAAA ATTACAAGTT TATTTTGCCT TGTCTATCG AAATAGTCTC AAATTATCCT	420
TGATTGGCAT CTTTATGAGT CTAGCAGCTG TGGCTAAGGT TCTCCTGGG ACTGTGCTAC	480
TTGTAGCAAT TGGTTATTAT ATGCCTGCCC TGCTATTTT TGTAGGAATT GGGATGTGGC	540
ATTTCTTTAT CAGTGATATG TTGGAACCTG TCTATGAAAT CATCCATGAA AAATTGGCGT	600

1326

CAAAATAGAA TGAAGCAGTT TTGGCTACAT ACGCTTCTAA GAACCTATAG TTCAGTGATG	660
ATCATTATCA TTGCGAGTTT TGCAATCTTA CTCTCTTACG CTGTCTGGGA TTCACGTG	718

(2) INFORMATION FOR SEQ ID NO: 295:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 295:

TCGGTACCAA AATTCTGGAT TTATACTAGC AAAGATCCAA GAGCAAATTA TTTAACAGAT	60
TTAGGTCTAG TTTTCCTGA ATCATTAAAA GAATTTGAGA GTGAAGATAG TTTTGCAAAG	120
GAAATTTCTG CAGAAGAAGC AAATAAGATA AATGATGCTG ATGTAATCAT AACTTATGGT	180
GATGATAAAA CTCTTGAAGC TTACAAAAA GATCCTCTTT TAGGTAAAAT AAATGCAATT	240
AAAAATGGTG CCGTTGCTGT AATTCAGAT AATACACCGT TAGCAGCCTC ATGCACTCCA	300
ACACCACITT CAATAAACTA TACTATTGAA GAATACCTAA ATCTTTTAGG AAATGCATGC	360
AAAAATGCGA AATAAAAAAC AAATAAACCT AGGCATAATT TTTATAATCT GCCTAGGTCT	420
TCCTATTACA ATATTTTGTG CATTAAAGCT TGGAAACAAA GAAATTAATA TCAGAGATTT	480
TTTAGCAGCT TTTGGAATGG GTAATACAAA TGATGATTTT ATTAAATCAA TTATATATAA	540
TAGAATACCT AGAACTATTT TTGCAATTTT AGCAGGTTCT AGTCTTGCCA TAAGCGGTGT	600
ATTGATGCAA TCAGTTACTA GAAACCCAAT AGCTGATCCA GGTATACTCG GTATAAACAC	660
AGGAGCAAGT CTTAGTGTAG TAATTGGTCC TTCTTTTGTAG GGAATTCATC AAGCATAA	718

(2) INFORMATION FOR SEQ ID NO: 296:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 296:

GAACTAATCA TTTTACAGG ATGAGATTTA CAGCAGAGAG TTTGAAGGCT TTATCAAAGG	60
TTTTTCTTGG CATAATGACT TTTCCTCGTT TCCACTTAAT TTTGTGTCTA CTTTATTATA	120
CCAAGTCCAC SCTTAAGTTA GATAATAAAT CTAACCTAAG GAAGCTAGAA GGATGAGAAT	180
CCAGGTGGTC AAGAGTCCCA AACTTAAGCT GATGGGGACA CCCAGAATAA TTTGCTTTTT	240

1327

GAAGGCAAGG CCACGTTCTT CTATATTGGG AAGTGAGAGT TGAATGAGAG AACCAGCTGA	300
TGAAAAGGGT GAGATATTAG TAGATAGAGC GCCAATAACG GTGGCTGTTG TGAGTAAGTG	360
AATATCAATC TGAGGATTTT GAGCACTGAT GATAGCAATG ATGGGAAAGA GGGCTGGAGC	420
TACAACGGAT AGGGTGGAAC TAAAGAGTGA CATCACTCCG GCTATCACAC AAAAGAACAG	480
AGGTAACCAG AAATGAGGAA TGGTTGTTGT CATGAGGTGC CCTATCAGTG TGAATAAACC	540
TGACTTGACC GCTAGAGACA TTAGTAAGCT CATGCCGAG AGCATGATAA TTGTAGCCCA	600
GGGAACCTTA GCTAAATGG CTTCTTGCTT CCCTAATTG AGCCTTAAGG CGAGGCAGAC	660
CATGAGTATT GAGACAAAGC CAATATCAAA TGTTTTTTGA TAAGTAGCTA TCCAGGCGAT	720
GTTTGGGAAA ATGAGATGCA ACAAGGAAA AAGCCAAACC AAAACCATGC TGCTGATCAT	780
GAGCAAGGTG GTTTGTCTTT GAACCTTGCT GAGGAGTGGT GGTGGTCAA TAGTCAAGGA	840
TGAGTTTGTT CTTCCCTTAC TATAGTGACT GTAACAGGAT AATAAAAGCA AGACGATGAG	900
TGGGTAGATA ATGCTGACGA TAAAGATATG ATTGCCAAGT GAAAAAGCTT GCTCTTCCCA	960
TCCCATTGTC TTAAACAGGC CTTGAAAGAC AATGCCTGAG CTACTGGTTA TCAAATTAGC	1020
CCCTCCTGAA GCTCCCCAAT TGACGGCTTG AGCTCCAATC AAAGGGTGTT TGTCCGCTTT	1080
TTGACAGAGG GTAATCGCTA GAGGACAGCA AACGGCCATA GTAGTGAAAA ATCCAGCACC	1140
TAAAGCAGAC AAAAGGGTTG CCATCAGGTA TAAATCATG TAGAGGGCGT TAGGGTGGGT	1200
GCGTGTGCGG TAGAGAATGT GTTGAGCCAA AACATCAAGA GTACCGTTAG TTGTTGCAAC	1260
GTTATAAAG AGAGAGACGC TAAAAATGGT AAAAAAGAGT GAGGTTGGCC AAAAAATGAAG	1320
AAGTTCTTTG GGGCTTAATC CCATGAGAGT GGTGCGATG AGGTAAGAAA AAGCAATAGC	1380
CAGCAGGCCA ATATTGATTT TGGTGCGGTA ACCAATTCCA ATGGCTAGAG CAATGG	1436

(2) INFORMATION FOR SEQ ID NO: 297:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1696 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 297:

CCATTGGGA AAGAACGTAA GAGTTGCAG GGTGAGATTC CAGAAGAATT TTCAATGTCA	60
GCCGTGACA TGTCTATGAT TGACCACATT CCAGATATGA TTGAAATGG TGTGGACAGT	120
CTAAAAATCG AAGGACGTAT GAAGTCTATT CACTACGTAT CAACAGTAAC CAACTGCTAC	180

1328

AAGGCGGCTG TGGATGCCTA TCTTGAAAGT CCTGAAAAGT TTGAAGCTAT CAAACAAGAC	240
TTGGTGGACG AGATGTGGAA GGTGCCCCAA CGTGAAGTGG CTACAGGATT TTAATATGGT	300
ACACCATCTG AAAATGAGCA GTTGTTTGGT GCTCGCCGTA AAATTCCTGA GTACAAGTTT	360
GTCGCTGAAG TGGTTTCTTA TGATGATGCG GCACAAACAG CAACAATTTCG TCAACGAAAT	420
GTCATTAAAG AAGGGGACCA AGTTGAGTTT TATGGTCCAG GTTTCCTGCA TTTTGAAACC	480
TATATTGAAG ATTTGCATGA TGCCAAAGGC AATAAAATCG ACCGCGCTCC AAATCCAATG	540
GAATATTGA CTATTAAGGT GCCTCAACCC GTTCAATCAG GAGATATGGT TCGTGCAATTA	600
AAAGAAGGAC TCATCAATCT TTATAAGGAA GATGGAACCA GCGTCACAGT TCGAGCTTAA	660
GAAAGGAAAA GGAAATGATA GAGGCACAGG GTTCTTAGT GGATAAGCAA ACAAGATGCA	720
TTCAATACCA TAGCAAGCTG GATATTATTG CTTTACAATG CTATGATTGT AAAAAGTATT	780
ATGCTTGTTA TCGGTGTCAT GATTCATTAG AACATCACCC TTTTGAGCCG TATCCCTTAT	840
CTTTGATACA GGATAAGCCT ATTTTATGTG GTGTTTGTCT AAAACTACTA ACATATAAGC	900
AATATAAGA AAGCTTAAGT TGCCCCTTTT GTTTTCTCG CTTTAATCCA GGTGCCCCAA	960
ATCATAAGGA ACGCTATTTT AAATAGCAAA TCATCTAGTT TTGAAGTAGG AGAAAACCTCA	1020
ATTTCAAGAG AAAATGAAGT AAATCTTCCC ACAATAAAAC GCATAATATC AAGATTGTTT	1080
AATACCTGAT ACTATGCGTT TTTAAGATTT TAAAGACTTT TTTCTTTAT CTGGTATTTT	1140
GACTACTTGT TAAACTGGG TTAATTTTCG ACTGTTTAAT AGTTATTATG CAAAGTCTAA	1200
AAGGTTAGAA TTGTCAAAAC AATCCGTCTA GAGTATGCGT GATGCCAACC GTGGTGGATG	1260
TTCTCAGTCA TGCCGTTGGA AGTACGACCT TTACGATATG CCATTGTTGGA AAGAACGTAA	1320
GAGTTTGCAG GGTGAGATTC CAGAAGAATT TTCAATGTCA GCCGTTGATA TGTCTATGAT	1380
TGACCATATC TCAGATATGA TTGAAAATGG TGTGGACAGT CTAAAAATCG AAGGACGTAT	1440
GGAGTCTATT CACTATGTAT CAACAGTAAC CAACTGCTAC AAGGCGGCTG TGGATGCCTA	1500
TCTTGAAAGT CCTGAAAAGT TTGAAGCTAT CAAACAAGAC TTGGTGGACG AGATGTGGAA	1560
GGTTGCCCAA CGTGAAGTGG CTACAGGATT TTAATATGGT ACACCATCTG AAAATGAGCA	1620
GTGTTTGGT GCTCGTCGTA AAATCCCTGA GTACAAGTTT GTCGCTGAAG TGGTTTCTTA	1680
TGATGATGCG GCGGTA	1696

(2) INFORMATION FOR SEQ ID NO: 298:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1022 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 298:

CCGAGTTTAT TATGGTTTCT TCGGAATTTA TCTCAAAGAT TGAATTTGCT TGCAATAAGA	60
AAGAAAAGTCT TTATAGTCAA AGCAAATTTA AGTATGCCAT TCGTTCGATG TTCGCAGGTG	120
CATTTTAAAC CTTCACTACT GCTGCAGGTG CAGTTGGGGC TGAATTGATT AATAAAATTG	180
CACCAGGTAG TGGACGCTTC CTCTTTCCAT TCGTTTTTGC TTGGGGCTTG GCCTACATTG	240
TTTTTTTGAA TGCCGAGTTG GTCACCTCAA ACATGATGTT CTTGACTGCT GGTAGTTTCT	300
TAAAAAAAT CTCTTGAGAG AAAACAGCTG AGATTTTACT ATACTGTACC TTGTTCAACC	360
TTATCGGAGC CTTGATAGCA GGGTGGGGCT TTGCTCATTC GGCAGCCTAT GCGAATCTGA	420
CACACGATAG TTTTCATCTCA GGTGTTGTTG AGATGAAGTT AGGCCGCTCA AATGAATTGG	480
TCTTGCTTGA GGCGATTTTG GCAAAATTTT TTGTAAATAT TCGGATTCTG TCATTTATTT	540
TGGTCAAAGA TGGTGGTGCC AAACCTTGGC TTGTGTTGTC AGCTATTTAC ATGTTTGTAT	600
TCTTAACAAA CGAGCACATT GCGGCGAAGT TTGCTTCTTT CCGGATTGTG AAATTCAGTG	660
TTGCTGCCGA TTCAATTGCC AACTTCGGTG TTGGAAATAT GCTTCGCCAC TGGGGTGTGA	720
CTTTCATCGG AAACCTTATC GGAGGAGGCC TCTTGATGGG TCTTCCATAT GCCTTCCTCA	780
ATAAAACGA AGATACTTAT GTAGATTAAG AAAATGAGCA CGATTGAGTC GTGCTTTTTT	840
CATTTTCAAA ATAAGGTAAT AGCTATTTCT TATATCAAAA TATAGAAAAC TGATATTTGT	900
AACTATAAC TCAAGGTGCT ACAATATCCT TAATAAATA ATATGGAGGT CACCTTATGA	960
CTTGATGATT TAAATnTGAA ACTCTACAAC TACATGCTGG TCAAGTTGTG GCTCCAGCTA	1020
CT	1022

(2) INFORMATION FOR SEQ ID NO: 299:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 663 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 299:

CCTTAAGTAA TCTCTGATAA TATTTTCTTT ATTAGCATAG GGGAATATCG ATATAATGGC	60
TTCAATTATGA GTGGCAGGAA TATCCAATAT GGCAACTTTT CCAATAGATA ATTTAAAACT	120
CATTAATAAA GTTCCTTTAG GTGAAATGTC TATTTTCTTT GATTTTAATG CTAATTTAGA	180

1330

AATAGATTCT CTCGCATTAG TTACATAACC AGATATAGGC ATATCTGATA TAGATACCCA	240
AGGTATTTC A GTTCCCCAA AAGTAGCTTC ACTGCGTGGA GGAGTTTTTC CTATTCTGAA	300
GTAACTAGG CTAGCAAATT TAATATATCT CCATGCTTCT GGGATTTCAT ATATAGGATA	360
AGAGGTGTGT TCGTCTTTGT TCCATAATA AGAGTTATCA TCTCCTTGGG AAACAATAGA	420
AATGTCCAAA TCTTTCTTTT TAATCTTGCC TTCTTCAAAG AGTTTTGTGT TTTCTGCTCG	480
TATTTTTC A AGTAAACTT CGACTGATTC ATCATTTGGG TCTTGTTC A CTAAATTTCC	540
TTGCATAGCA TATTGAAGAA TAGATTTTTT TAGTTTATCT GGAAATCTT TATCTAGCTG	600
TTCTAGTCTA TTATAACTTT CAGCATATTC ATCTACTTTT TCTAAAGCTG ATTCGATTGC	660
TTC	663

(2) INFORMATION FOR SEQ ID NO: 300:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 881 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 300:

CGTCGCTGAA CATGTCAACA GCAAATTA A CTAAACAAAC TAAATTATG TGATACTTCA	60
CATAATTTTC TTTAGAAAAT ATTATCAGAA GAAAGTTGAG AAAAATGGCA GAAAAACAT	120
ATCCTATGAC CCTTGAGGAA AAGGAAAAAC TTGAAAAAGA ATTAGAAGAA TTGAAATTGG	180
TTGTCGACG ACC AGAAGTGGTA GAACGCATTA AGATTGCCCG TTCATACGGT GACCTTTCAG	240
AAAACAGTGA GTACGAAGCA GCTAAGGATG AACAAGCCTT TGTCGAAGGA CAAATCTCTA	300
GCTTAGAAAC AAAAATCCGC TATGCTGAAA TCGTCAATAG CGACGCAGTT GCCCAGGACG	360
AAGTAGCGAT TGGTAAAACA GTCACCATCC AAGAAATTGG TGAGGACGAA GAAGAAGTTT	420
ATATTATCGT AGGTTCAAGT GGTGCAGATG CCTTTGTAGG TAAGGTTTCA AATGAAAGCC	480
CAATTGGGCA GGCCTTGATT GGCAAGAAAA CAGGTGATAC AGCAACCATT GAAACGCCTG	540
TTGGTAGCTA TGATGTAAAA ATCTTGAAGG TTGAAAAAAC AGCCTAAAAA CAGAAAAAGG	600
AGTGGGGAGG CGATGTGCTT CACTCACTCC TTTTCCATT TTGCTACTCT TCGAAAATCT	660
CTTCAAACCA CGTCAGCGTC GCCTTGCCGT ATGTATGGTT ACTGACTTTG TCAGTTTCAT	720
CTACAACCTC AAAACAGTGT TTTGAGCTAA CTTGTCAGT TTCATCTACA ACCTCAAAC	780
TATGTTTTGA GCTGACTTCG TCAGTTTCAT CTACAACCTC AAAACCATGT TTTGAGCCGA	840
CTTCGTCAGT TTCATCTACA ACCTCAAAC TATGTTTTGA G	881

1331

(2) INFORMATION FOR SEQ ID NO: 301:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 949 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 301:

CCTTTTAA TACAAGTTAT TTTGATTTAA CCGGCTTGTC TTGAGCTGTC TGCAAAGCTG	60
TGGCAATCGT ATCTGCATAC AATTTTGCTC CTGCTTCGAT AGTGCTACTC TCACTCCCGA	120
AATGAACCTG GTCTGTTCCTA GCCCAAATTT CTGGATGCTC TTTCGCAACT TGATTCCAAT	180
CTGCTATCGT AATGTAAGGT GTCTTCTCTG CCAATCTCT CATATAGGCA GCAGCCTTCT	240
CAACGATGGC ATAGGTCTCT TTTGTCTTAT CTCCCTCATA AGGAGTCACC AAAATCATAT	300
GGTGTCCCTT AGGAAGATTT TTCACGATAC TGTCCAGTC ATCCTTGTA TTCTCAGGAT	360
TATTTACCCC AGTCGCAATG ACCACCGTCT TAGGTAAAAA TTTATCTGG CTATTATTTA	420
GCATGATTTT ATTTGCGGTC TTGGTTGTTA CGCTGACCTG CGCGTTAATC TGTGCTCCAG	480
GAAGAGCTGT CTGTAGTGCT GTATTTGCCC TTAAAGCCAC TGAGTCACCA ATTAACATAG	540
TGCCATCAGC AATTCCTAAA CTGTTTGCAT CTGCCCGTTC TGCCATCACC TTGGTCTGGC	600
CAATATTTGT TGCAGCTTGC TTCAAGCCAT TGACAGTCAA GTCTGTCTCA AACGCTCCCA	660
CTTGTGGTGC CAACAAGGTC ACCGTGCAGA CAATGATGGT CAAGATTCCT GTACCTGCTG	720
CAAGAATTGC GTGAATATAA GGCAGGGGAC GAAsGGTTTG GACAATAGGT GTGTTCTTGC	780
CTGCAATCCA AGGTTCCAAT ACATAAAATG ACAGACTGGC AAAGCCATAA GAACAAATCA	840
GAGTCAGTAA TACAGCAAGA AGATTTGATG TCAACTGTGA GAAAATGATA TAGAAAGGCC	900
AATGGAAAAG ATAAACCGCA TAGCTAGTAT CCGCTAAAAA GCTGATAAT	949

(2) INFORMATION FOR SEQ ID NO: 302:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 622 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 302:

AAGATATATT TTTTACACAG AAGTATGCAA AAGTAAAGAG TGCAAAAAAT GGAATTAAAG	60
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1332

CGAAAATAAA AGCCGTGTAC AGGCGACCAA ACCAACGTAC ACGGCTAAGG AAAAATAACA	120
AAACTCAAGC AAAGGCAAGG CGCGTGGTTT TGTTAGGTAT TTAGCAAGGG GACAAACCCC	180
TTTGTAATA ATCTCCTCTT ATTTTATCAA AATTAGAGGA AAATGACAAC TTAATTTATA	240
AAAAGGAAAA ATGGAGGATA TAAATGGAAA TTCTGTCTAA AGAAATACAG TTACAGGGCT	300
TACAACCTCT TAAACAGACT CTTGAACTT TAGTTGAGCT AGAAAAACAA CGATCTAGTA	360
AGTTAGATTT AATTCTCGT AAAGAATTAA TGGATCTGCT AGGTATAAGT GCTACAACCC	420
TTGATAACTG GGAGGATCTT GGTCTTAAAC GATATCAGAC TCCGATGGAT GGAGCTAAGA	480
AAGTATTCTA TCGTCCGTCA GATGTGTATT TATTTTTCAG AATAAATAG GAGTTATGAA	540
ATGAAATTG TTACTTTCAA ACCAACTAAA CAAATAGACG ATGGGTTTAA ACTGCCAGGT	600
ATTGACATTC TATTTGTCTC AG	622

(2) INFORMATION FOR SEQ ID NO: 303:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1929 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 303:

CGCTAACTTG CAAACAAAAG AAGAACGCAA ACTCCACAAA TCCTTTACGC AGAAACTCAA	60
TTCTCATCTAC TTACCTTGCT GACTTGGTAG AGTATGTTGC AGACAAAGAC TTCTCAGTAA	120
ACGTAATTTT TAAATCAGGT ACAACAAGT AACCAGCGAT TGCTTTCCGT GTCTTTAAAG	180
AACTCTTGGT TAAGAAATAC GGTCAGAAG AAGCTAACAA ACGTATCTAT GCAACAAGT	240
ACCGCCAAAA GGGTGCTGTT AAGGTTGAAG CAGACGCTAA CGGTTGGGGA ACATTTGTTG	300
TTCCAGATGA TATCGGTGGA CGCTTCTCAG TATTGACAGC CGTTGGTTTG CTTTCAATCG	360
CAGCATCAGG AGCTGACATA AAAGCTCTTA TGGAAGGTGC GAATGCAGCT CGCAAAGACT	420
ACACTTCAGA CAAAATCTCT GAAAACGAAG CTTACCAATA CGCAGCTGTT CGTAACATCC	480
TTTATCGTAA AGGCTATGCA ACTGAGATCT TGGTAAACTA TGAGCCATCA CTTCAATACT	540
TCTCAGAATG GTGGAACAA TTGGCTGGTG AATCAGAAG AAAAGACCAA AAAGGTATCT	600
ACCCAACCTC AGCCAACCTC TCAACTGACT TGCACCTACT TGGTCAATTT ATCCAAGAAG	660
GAACTCGTAT CATGTTTGAA ACAGTTGTCC GTGTTGACAA ACCTCGTAAA AACGTGCTTA	720
TTCTACTTTT GGAAGAAGAC CTGACGGAC TTGGTTACCT TCAAGGAAAA GACGTTGACT	780
TTGTAAACAA AAAAGCAACT GACGGTGTTC TTCTTGCCCA CACAGATGGT GATGTACCAA	840

1333

ACATGTATGT GACTCTTCCA GAGCAAGACG CTTTCACTCT TGGTTACACT ATCTACTTCT	900
TCGAATTGGC AATTGCCCTT TCAGGTTACT TGAATGCTAT CAACCCATT T GACCAACCAG	960
GTGTTGAAGC TTATAAACGT AACATGTTTG CCCTTCTTGG AAAACCAGGA TTTGAAGAAT	1020
TGAGCAAAGA ACTTAACGCA CGTCTATAAT AGAAGAAAAG AGTGGTTTGC CCACTCTTT	1080
TACTCTCTTT ATCCATAGAA ATTGGACTCA GCCAAGACTT GTGATATAAT ATAGAAAGCA	1140
AAAAGGCAGA CGCCTAGATA ATAGGAGAAA CTATGTCAAA AGATATCCGC GTACGTTACG	1200
CACCAAGTCC AACAGGACTA CTACACATCG GAAATGCTCG TACAGCATTG TTTAATTACT	1260
TGTATGCGCG CCATCATGGT GGAACATTTT TCATCCGTAT CGAAGATACT GACCGTAAAC	1320
GCCATGTCGA GGATGGTGAA CGTTCACAAC TTGAAAACCT TCGCTGGTTA GGCATGGATT	1380
GGGTGAAAG TCCAGAATCA CATGAGAATT ATCGCCAGTC TGAGCGTTTG GACTTGTATC	1440
AAAAATATAT TGACCAACTA TTAGCTGAAG GAAAAGCCTA TAAATCTTAC GTTACAGAAG	1500
AAGAGTTGGC AGCTGAACGC GAACGCCAAG AAGTAGCTGG CGAAACACCA CGCTACATCA	1560
ATGAATACCT TGGTATGAGT GAAGAAGAAA AAGCAGCTTA CATCGCAGAA CGTGAAGCAG	1620
CAGGGATCAT CCCAACTGTT CGTTTGGCTG TCAATGAGTC AGGTATCTAC AAGTGGCATG	1680
ATATGGTCAA AGGCGATATC GAATTTGAAG GTGGCAATAT CGGTGGTGAC TGGGTTATCC	1740
AAAAGAAAGA CGGTTACCCA ACTTACAAC TTTGCCGTTGT TATCGATGAC CACGATATGC	1800
AAATCTCTCA TGTTATCCGT GGAGATGACC ATATTGCTAA TACACCAAAA CAGCTTATGG	1860
TCTATGAAGC TCTTGGTTGG GAAGCTCCAG AGTTCGGTCA CATGACCTTG ATTATCCACT	1920
CTGAAACTG	1929

(2) INFORMATION FOR SEQ ID NO: 304:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 708 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 304:

AAATTTAAGA AAAAGGAGAC ACATCATGTC TAAAAAAGTA TTATTTATCG TCGGATCACT	60
ACGTCAAGGT TCTTTCAACC ACCAAATGGC GCTCGAAGCT GAGAAAGCAC TTGCTGGTAA	120
AGCGGAAGTT AGCTACCTTG ATTATTCAGC CCTTCCTCTC TTCAGCCAAG ATTTGGAAGT	180
TCCAACACAT CCAGCTGTAG CTGCTGCTCG TGAAGCAGTT CTCGTTGCGG ATGCTATCTG	240

1334

GATTTTCTCT CCAGTCTACA ACTTCTCTAT CCCTGGTACA GTGAAAACT TGCTTGACTG	300
GCTATCTCGT GCCCTTGACT TGTCTGATAC ACGTGGCGTT TCTGCCCTTC AAGACAAGTT	360
TGTCACAGTA TCATCTGTAG CCAATGCAGG GCACGATCAA CTTTTCGCTA TCTACAAAGA	420
CCTCTTGCCA TTTATCCGTA CACAAGGCGT TGGTGATTTC ACTGCTGCAC GTGTTAATGA	480
CTCTGCCTGG GCAsACGGAA AATTGGTTCT TGAAGAAACA GTCCTAACT CACTTGAAAA	540
ACAAGCTCAA GACTTGGTCG AAGCTATCAA GTAACATACTA CTCAATAAAA ATCAAAAAGC	600
AAACTAkGAA GCTArCCGCA AGCTACTCaA gCACTGCTTT GAGGTTGTAG ATAGAACTGA	660
CGAGTGTnnA ACATATATAC GGTAAGGCGA CACTGACGTG GCTTGAAn	708

(2) INFORMATION FOR SEQ ID NO: 305:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 781 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 305:

CTTCTTTTCT TGGAAATAGG TGTATAATAC GTTTATTAAA TTTTGAGGA GTTGTCTATG	60
AAGAAAAGTT TTATCCATCA ACAAGAAGAA ATTTCTTTG TCAAAAACAC TTTTACCCAG	120
TATTTGAAAG ATAAGCTAGA AGTTGTCGAA GTTCAAGGTC CTATCTTGAG TAAGGTCGGT	180
GACGGAATGC AGGACAACCT GTCTGGTGTG GAAAATCCAG TATCGGTCAA GGTTCCTCAA	240
ATCCCTGATG CTACTTATGA AGTGGTGAC TCACTTGCTA AATGGAAACG CCACACCTTG	300
GCTCGTTTTG GCTTTGGTGA AGGAGAGGGT CTCTTTGTCC ACATGAAAGC CCTTCGTCCA	360
GATGAGGATT CCTTGGATGC AACCCACTCT GTTTATGTTG ACCAGTGGGA CTGGGAGAAG	420
GTTATCCCAA ATGGTAAGCG TAACATCGTT TATCTAAAAG AAACAGTTGA GAAGATTAT	480
AAGGCTATTC GCCTGACTGA GCTAGCTGTT GAAGCCCGCT ATGACATCGA GTCTATCTTG	540
CCAAAACAAA TTACCTTTAT CCATACAGAA GAATTGGTAG AACGCTACCC AGACTTGACA	600
CCGAAAGAAC GTGAAAATGC GATTTGTAAA GAATTGGAG CCGTCTTTT GATTGGTATC	660
GGTGGCGAGT TGCCAGATGG TAAACCGCAC GATGGACGTG CACCAGACTA TGATGACTGG	720
ACAAGCGAGT CTGAGAATGG CTACAAGGGT CTAATGGTG ATATTCTTGT CTGGAATGAG	780
T	781

(2) INFORMATION FOR SEQ ID NO: 306:

- (i) SEQUENCE CHARACTERISTICS:

1335

- (A) LENGTH: 846 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 306:

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CCCCGATCTT GTAGGGTTT AACGGGCACG ATTTTCATAT CCGTCTTGAT TGTTTTAGCC      60
GCTTCTAGGG CTGTTTGGA GTTGTTTTTC GCGTCCGGAT GCGCCTTTTG TTCTTCTCG      120
CTAACAGGGT TATCAGGAGC AAAGAAAATA GCAGCACCTG CCCTAGCCGA AGCTACAACC      180
TTCTTATCAA TACCTCCAAT GTCTCCACA TTACCATCGC GGTCAATGGT ACCTGTACCG      240
GCAACAATAC GACCATTACG AAGATCTGGG TGAGCTATTT GAGTATAGAT AGCTAGACTA      300
AACATGAGAC CAGCACTTGG ACCGCCAATA CCAGCTGTTG AAAAGCTAAT TGGGACATTG      360
CTGATTACCT CTGTACGGTC AATCAAGCCG ATTCCAATTC CATTTTTGCC ATTTTCCAAG      420
GTGATGATTT TTCCTTCTGC AGACTTGGTT TGCCCATCCT CTTCATAGGT GACCTTGACG      480
GAATCCCCTA ATTTTGTAGA ACTGACGTAA TCAATCAAGT CTTTGGAAC ATCAAAGGTC      540
TGATCATGA CTGCTGTGAC TGTATCAGAG ATATTGAGAA TCCCTTTAAA GGTGAATTA      600
TCCGTCACAT TCAAAACATA AACTCCAAAG TACTTGAGTT CGATATCCTT ACCAGCTGTT      660
TTTGTCTCTT GATACTTGGC CATATTTTGC GATGTTTGCA TGTAGAATTG ATTGATTCGC      720
ATAAATTCAA CATCGGAAGA ACCACCTGTA GTCTCCTGAG CACTACGAAT ATCTGTAAAA      780
GGTGTCAACC AAGCATAAAT CATATGAGCT AAAGTGGCAT GTTGAACACC AACCGTAACG      840
AATTGT

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(2) INFORMATION FOR SEQ ID NO: 307:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 829 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 307:

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GCGATCTGCT TGGGCTTTTC CTATTACCTT ATCTAATAAA TAGGTACGCA GACTCATAAC      60
CATATAAAGT CCACCCCCCA TGGCACCGAC AAGAGCTACA TAAAAGAAGC TCCACAAACG      120
TCCACTTGGT TGGAAGAAAA ATCCTAACAG CCACTGGATG GTTCCTATTA ACAGAAACAT      180
GACTAGGGTC AGCAAATGA TTAAATGGT TCGCTTCAA ATCACCTTGC GCTTGACACC      240

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1336

AGTTACTTTA CAAATATCCC GATACATCAA GACGTTAGGA ATGATGAGAG CAATGGTTGT	300
TGAAATCAAA GGACCATAAC TGTGGAAGAG GCGGATGGTA GGTAGTTGCA AGACTAGCTT	360
GGCAATAGAA CCATAGATAA AATAGAGAAC GGCCTTGCGG TTGCGGAACA TGGCCTGAAG	420
CATTGGAGAC AAGACCATGT ACAAGCCTAA AATAATAGAC TGCAAACTG CAAAGACAAA	480
TAAGCCCAGA GCCAAACTAT CTGGCTTACC ATAGAAGACC GTATAAAGAG GTTCTCCTAC	540
CATAACCACT CCAACCGTTG CTGGTAGCAA GAACATAAAG AGTAGGGTGA GACTGTCCTG	600
AACGAGACGA GAAGCTGCTT TCAAGTCCCC CTTGACATAG TTTTCCGTCA AAAGTGGCAA	660
ACCAACACTC CCAATCGAAA CCCCTACAGA AATCAAAATC ATCGTGATTT TATTAGGATT	720
GGCTGAGAAA TAAGAAAACA TGACAACCAA GTCCTCATTT CTGTAGTTGG TAAACCAGCT	780
CATACTATTG ATAAAGGTCA GCTGAGTCCA AATCTGGAAG AGCTGGATG	829

(2) INFORMATION FOR SEQ ID NO: 308:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 464 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 308:

CGAACATCTT GCTGGCTGAT TCGTCTGCCG CCATCGCAGC CCCGAACACA TTGCGACCCA	60
TGGCAAGCGG GCTCAATCCG CACATGGGAT CCGTGCCAAA GCCCCGCGTG TGCATCATTT	120
GCTCATCTAG TAACGTATGA GGTTCGCCTT CGCTGTCGAT AAACCGATAT TCAATCGCAC	180
CACTGCTCGT TCTCCGCGGA GGGGAAACCG ACTGCGGTAG GATGAACTCC AGAGAAGAGA	240
GATCACGACC TACCAGGTGC GGCTCGTTGA AGCTGTTGCC GCTTAGCAGC AGGCTCGCCA	300
CCACGCATTC CCAGAACTCA ACGGGGGTTT GATCGGCGTT CGGTTGCTGA CTAATAACTC	360
GGTGACGGG ATGCGAAGTG GCCACTTCTG GCACACCGTT CTTGTCTTCG TAGAGAGCAA	420
TTGGGAGGGT GGCCAGCGTT TCGGCGATGA GCGCACGCA GGCC	464

(2) INFORMATION FOR SEQ ID NO: 309:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 982 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 309:

1337

CCGTCTATAA TGGTAATAGA TTTTATTTGG AGGTTTTTAT GTCATTTCTA TCAAAAAATG	60
GAGCAGGTAT CTTGGCCTGC CTTCTCATTT CCATCCTATC TTGGTACTTA GGAGGATTCT	120
TCCCTGTGGT TGGCGCGCCC GTTTTGTCCA TTTTCATAGG CATGCTCCTA CATCCCTTTC	180
TCTCGTCTTA TAAACAACTG GATGCTGGTT TGACCTTTAG TTCCAAGAAG TTGCTCCAAT	240
ATGCCGTGT CTTGCTTGGT TTTGGTCTCA ATATCTCGCA GGTCTTCGCA GTTGGCCAAT	300
CTTCACTCCC TGTCATCCTG TCCACTATCT CAATAGCTCT GATTATTGCC TACCTCTTCC	360
AGCGTTTCTT TGCCCTGGAT ACAAACTGG CTACCTTGGT TGGAGTAGGT TCTTCTATCT	420
GTGGGGGTTC TGCCATTGCA GCGACAGGCC CGTTATTGAT GCTAAGGAAA AGGAAGTAGC	480
CCAAGCCATT TCCGTTATCT TTTTCTTCAA TGTCTTGGCT GCGCTCATCT TTCCAACCCT	540
CGGCACCTGG CTTTCATCTAT CCAATGAAGG CTTGCCCCTC TTTGCAGGGA CTGCGGTCAA	600
CGCACTTCC TCTGTAACGG CTGCCGCCAG CGCTTGGGAC AGTCTTTACC AAAGCAATAC	660
CCTCGAGTCT GCAACCATTG TTAACTCAC ACGTACTTTG GCCATTATCC CTATCACGCT	720
CTTTCTATCC TACTGGCAAA GTCGCCAACA AGAAAACAAG CAAAGCCTGC AACTGAAAAA	780
AGTCTTCCCA CTTTTTATCC TTTACTTTAT CCTTGCCTCT CTCCTCACTA CACTACTCAC	840
CTCTCTAGGT GTGTCCAGTA GTTCTTTTAC TCCTCTCAA GAACCTCTTA AATTCCTTAT	900
TGTCATGGAC ATGAGTGCTA TCGGTCTCAA AACCAATCTG GTCGCTATGG TCAAATCCAG	960
TGGAATATCC ATTTCATCATG GA	982

(2) INFORMATION FOR SEQ ID NO: 310:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1939 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 310:

CTAGCTGCCA ATATGATTGG GGTGCAGAAG CGCGTGATTA TCTTTAATCT TGGCTTGGTT	60
CCTGTGGTCA TGTTTAACCC AGTGCTTCTG TCCTTTGAAG GATCCTATGA GGCAGAAGAA	120
GGCTGTTTGT CCTTGGTAGG TGTGAGATCA ACTAAGCGTT ATGAAACCAT AAGGCTTGCC	180
TATCGTGACA GCAAGTGGCA GGAACAGACC ATTACCTTGA CAGGCTTCCC AGCTCAGATT	240
TGCCAGCATG AGCTGGATCA CTTGGAAGGA CGAATCATTT AGGAGGAAAG CAAATGAAAC	300
GAATAGTCTT TGAACTTATT TTTATCGCAA CGACCTGGTA TATCTTTTTA CCGCCCCCTTA	360

1338

ACCTGACCAG CTGGGAATTT CTCTTCTTCC TCTGTGGGCA TTTGTTAGTT GTGGCAATAT	420
TATTTGGCTT TGGCAAGGGG ATAAACCTTG TCAAAACGGT TCATGTGCGC CACGGTAAGG	480
CGGAAGCTGC CTTAAATCTT GAGGGTTTCA AAATCAATCG GTTAGGGAAA ATTCTGTTAG	540
CTTCGATTGG AGGAATCTT CTCTTGGCAG CTTTGGTTTc CTTGGTAACT TCCAGCATGT	600
TTCAGGCTAA AAATTATGCC AATGTAGTCA CGGTTACGGA AAAAGACTTT ACTGAATTC	660
CTAAGAGTGA CACCAGTAAG GTTCCTATCC TAGATAGAAG TACTGCTGAA AAAATTGGAG	720
ACCGCTACTT GGGTTCCTA ACCGATAAGG TGTCGCAATA CGTAGCGGCA GATACCTATA	780
CCCAATTGAC AATTGATGGG AAACCTTATC GGGTCACACC ACTAGAATAT GCAGACCCTA	840
TCAATGGTT TAACAATCAA GCCAAGGGAA TCGGTGAGTA TATTAAGGTG GACATGGTAA	900
CTGGAATGC GGATTTGGTG GACTTGAAGA CACCAATCAA GTATTCAGAC TCGGAGTATT	960
TTAACCGTGA TGTCAAACGT CACCTGCGCT TGAAGTACCC GACCAAAATC TTTAAACTC	1020
CATCTTTTGA GGTGGACGAT GAGGGCAATC CTTTCTATGT AGCAACGGTT TACCAAAAGC	1080
AATTGGACT TGCTGTTCTT CGTCCTGCTT CAGTCATTAT CTTGGATGCT ACAAATGGAG	1140
AAACCAAGGA ATACAGCTTA TCAGATGTTT CAGAATGGGT GGACAGGATC TATCCAGCAG	1200
AGGAAACCAT TGAGCAAATC AACTACAACG GCAAGTACAA GGACGGTTTC TTGAATGCCA	1260
TGATTTCCAA GAAAAACGTG ACCCAGACTA CCAATGGCTA TAATTACTTG TCTATCGGTA	1320
ATGACATCTA TCTCTACACA GGTGTGACGT CGGCTAATGC GGATGAGAGT AATCTTGGTT	1380
TCATCCTTGA AAATATGCGA ACAGGAGAAA TACTAAGTA TAGCTTGGCT TCTGCGACAG	1440
AAGAATCAGC CCGTGAATCA GCAGAAGGTG CTGTTTCAGGA GAAATCCTAC AAAGCAACCT	1500
TCCCAATCCT CATCAACCTC AATGACAAGC CTCTCTACAT CATGGGCTTG AAGGACAATG	1560
CTGGCTTGGT CAAAGAGTAC GCCCTGGTAG ACGCAGTCGA GTACCAAAAT GTTATCGTTG	1620
CTACTACAGT GGAAGAGATG CTCAGCAAGT ATGCCAATAA AAACGACCTT GAAATTGACA	1680
ATGCAACGAC AGAAAGCATC AATGGAGTAG TAGCAGACCT CAAATCAGCT GTTATCAAGG	1740
GAGACACTGT CTACTTCTTT AAAGTTGATG GCAACATCTA CAAGGTCAAG GCTTCAGTAT	1800
CCGATGACCT TCCTTACCTT GAAAATGGTA AAACCTTCGA AGGTCAAGTA GGAAAAGACA	1860
ATTATCTCAA GACCTTTAAG CTACGGTAAA AATAGGTTTT TTTCAGAAAG TATATGTTAT	1920
AATAAGGTAA ATTAAGCCG	1939

(2) INFORMATION FOR SEQ ID NO: 311:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 907 base pairs
 - (B) TYPE: nucleic acid

1339

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 311:

CCTGCTAATA GAGAGAAAGA CTAGGAGTAG AAGTAAGCCA ATTAAATAAT GAGAAAGTTT	60
CATACCCCGT CCTTTCATGT AGATTGGTA TCGAAAGATA TCTGCGGATA TAAATGTAAC	120
ATTATTTTTC TAATCTGTCA ATAAAATTTC TGACAATTTA ATAAATACAA CAAGGAGAGA	180
GCAACAAGAC TTTCTCCTTT GTTATCCTAT TCTAAAATGT TTTTACCTTA ATCTGATAAA	240
ATAATATCTT CGAGGGAGTA GCTAGCCGTC CAATCAAGAT ATTGTTTAGC TTTTGAAGCA	300
TCTGCTAGGA CACTGGCTGG GTCAGTAGCA CGTCGAGCAA CAATCTCGTG TGGGATTTTT	360
TAATTTAGTA ATTCTTCAGC AGTTTAAAG ATTTCTTTGA TAGTATAGCC TTTTGTAGTT	420
CCTAAGTTAA AGATTGAGA AGAACTGTCT TCTTGAAATA GGTAGTTCAT TCCTTTAACA	480
TGAGCCTATG CAAGGTCCAA GACATAAATG TAATCTCGAA TACATGAACC GTCACGTGTA	540
TCGTAGTCAT CTCCAAATAT TTTTAAAGCTA TCATTTTGTC CCAATGCGGT CTTGTTGATA	600
TTTGGAATGA TGTGAGTTGG ATTTTTCACA CGCAGACCGT TTGAAGCATC CATTTAGGCC	660
CCAGCAACAT TAAAGTAACG GAAAATAACA TATTTCAGT CGTAGCGATT GGCCATCCAG	720
TAAATCATTC GTTCGCCCAT CAGTTTGTGC TCTGCATAAG GGTGACAGG GTCGAGCAGG	780
GTATCTTCAG TCACCGGCTT GTCAATACAG TTATTTCCAT AGAGAGAAGC AGTCGAAGAG	840
AACATGATTT TTTGAATGCC AACTTCAGAT AAGACTTTGA GAACTTGGTT CATACCAGCA	900
ACGTTGG	907

(2) INFORMATION FOR SEQ ID NO: 312:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2170 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 312:

CCACATAAAG GTAAATATCT TTTGTAATAT CTTGGGCATC CAAGAAAAGC AATTGGGCAA	60
TAACAGAGTT AGCCATATTG TCTTCAACCG GACCTGTCAG CATAATGATG CGGTCTTTGA	120
GAAGACGTGA GTAAATATCG TAAGAACGTT CTCCACGGCT TGTGTTGTTCA ATAACATACAG	180
GAATCATTC A TTTCTCCTTT TGAGTTTAA TTTGTTGGT CAAATGACTG AAGATAAGAC	240

1340

TATTATAATA TCTTGGTCAA AAAAGGTCAA ATTTTGGCTC TGCTTTCATT AGACAGAAAC	300
AAAAACCCAA CCTCCTTTCG TGACTGGAAA TACTTTTCCA AGTCATTCTT CTTTTCGATC	360
TTATTTTGTA CCGAACAAGC GGTCTCCAGC ATCTCCAAGA CCTGGAACGA TATAACCGTG	420
TTCGTTCAAA CGTTCATCCA AGGCTGCTGT AAAGATTTCT ACATCTGGAT GAGCTTCTTG	480
AAGGGCTTTT ACACCTCTG GAGCAGATAC AAGGCAGACA AATTTGATAT TTGATGCGCC	540
ACGTTTTTTA AGAGAATCAA CAGCCAAGAT TGCTGAGCCA CCTGTTGCCA ACATTGGGTC	600
TACTACAAAA ATTTGACGTT GGTCAATGTC CTCAGGCAAT TTCACCAAGT ATTCAACTGG	660
TTGAAGTGTT TCTTCATCAC GGTACATACC GATGTGGCCA ACTTTAGCAG CTGGAACCAA	720
GTTCAAGAGA CCATCAACCA TCCCGATACC TGCACGCAAG ATTGGGACGA TGGCCAATTT	780
CTTACCTGCC AATTGTTTTT GAACGTTTTT TGTAATTGGT GTTTCGATTT CCACATCTTC	840
TAGTGGAAGA TCACGAAGTA CTTCATACCC CATCAACATT GCAATCTCAT CTACTAGCTC	900
ACGAAAAGCT TTTGTAGAAG TATCTGTACG ACGCAAGATT GACAATTTGT GTTGAATCAG	960
TGGGTGATTA ATAACITCAA TTTTCCCAT TTTTGGAAAT CCTTCTTTCA ATTTATCTTT	1020
CTTATTATAC CAAAAACGG TTTAAAAATC TTTCTAAACC ATTTATTTTT GATAATTTTT	1080
ACATTAGATC AGCCTCTTTA AGAGCTGTCT GTACTGTCTC AAGTGGTAAA TGGGTCAATT	1140
CTGTCCCTTT TTCTTGATAA AGGTATTGGG CGTAGTCGTC CATTCGGTAC TGGTTGATAT	1200
AAACCACGCG CTTGCAGCCG ACCTGAAGCA ATTGTTTTGT ACAGTTGAGA CAAGGAAAAT	1260
GGGTACATA GGCTGTAAAG CCTTTGGGAA CACCACGCTC AGCACCTTGA AGGATAGCAT	1320
TGACCTCAGC GTGAAGGGTG CGAACGCAGT GGCCTTCAAT GACCAAACAT TCGTGATCAA	1380
TACAAATGCTC AGTCCCTGAC ACCGAACCAT TGTAACCAGT GGAAATAACC TTATTATCTT	1440
TTACCAGAAAT CGCGCCCACT TTAGCACGTT TACAAGTGGA ACGATTGCA ATTAGTAGAG	1500
CTTGGGCTGC AAAATACTCA TCCAGGCCA GTCTTTTTTC AGTCATCTCT TTTCTCCTTT	1560
TTCTCTATTT TTTAAAAAT GGTAACCTA AATCTGCAAT CTTTTCAGCT GGTACCTTCA	1620
TGCCATCCTT GATCCATTTT AGAAGGACAG AGACGATGGC TGAGCTCCAG AAGGAATGAA	1680
GATAAGAGCT GACACCTTTT GATTTCCCAT GGTATTTTTC TAGAAATTCC TGCATGGCTT	1740
GGACAAAGAT TTTTCCAGA TGGTAATCCA AGGCCAATG AATTACTCTA GCTTCCTTTC	1800
TGGCCTCCCG GAAAAGGTGA ACCCAAACCA AATAAAGGTC TGTCTTTAAA TCGTAATGAT	1860
GCAGCTGTTT CATAATATTG TGGACAGTTC GTTTAAAGAC GCTCTCTAAA ATTTCTCTTT	1920
TGGAGTCATA ATTGCGATAA AAGGCCGCAC GCGAAACACC TGCACGTTTG ACCAATTCAG	1980
AAATACTAAT CTTGGTCAGT TCCTTTTTTT CCAAGAGTTG CAAGAGGGCT GTTTCATGAT	2040

1341

CTTCTCTGGT TAATAAATG GATTCTTGGT TTGATTTTCT GAGATTTTCA AGAGACTTTT 2100
CAGAGATTCT ACGTTCAGAC ATAACATTTT CTTTCTACTT GTCACAACAG ACGGATGATG 2160
CTTTTGTTC 2170

(2) INFORMATION FOR SEQ ID NO: 313:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 539 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 313:

ATCTGCACGA ATCAGGGCTT TCTAAGTGAC TATTTCCACC GAAATATTAT TTATATCAGG 60
AGGACATTCA TATGTCACGT TATACAGGAC CATCTTGGA ACAAGCTCGT CGTCTTGGCC 120
TTTCACTTAC AGGTACAGGT AAAGAATTGG CACGTCGTAA CTACGTACCA GGACAACACG 180
GACCAAAACA CCGTTCTAAA TTGTCAGAAT ACGGTTTGCA ATTGGCTGAA AAACAAAAAC 240
TTCGTTTCAC TTACGGTGTA GGTGAAAAAC AATCCGTAA CTTGTTTCGTA CAAGCTACAA 300
AAATCAAAGG CGGAATCCTA GGTTCACACT TTATGCTTCT TTTGGAACGT CGTTTGATA 360
ACGTTGTTTA CCGTCTTGGT CTCGCGACTA CTCGTCGTCA AGCTCGTCAA TFCGTAAACC 420
ACGGTCACAT CCTTGTGAC GGGAAACGCG TTGATATCCC ATCATCCGC GTAACCTCCAG 480
GTCAAGTGAT CTCAGTTCGT GAAATATCAT TGAAAGTTCC AGCAATCCTT GAAGCAGTA 539

(2) INFORMATION FOR SEQ ID NO: 314:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 667 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 314:

CCGGTTTTCG TCCTTCTCTA CGGCTACGAC GTGATGTATC TCTGATGATA TCCACTGTTT 60
CTGTAGCAGG CGTAGGTGTT TCTGGACCTG CTTGTTCTGC TTTTCTCTCT GCCGTCGPAT 120
AGGAAACAGC TACCCTTGTT GGGGTTTCAT TGTATCTCT TTCAAGTTTC TTAGGTCTAA 180
CAGGACCTGG ACCTGGTCTT GATCCACTTT CTTCCGCTGG AGAAGAAGGT ACATCTTGAC 240
TTGGATGACT TGGAACACCA GGAGTTTCTC TTTGAATCTC ATCTGCTGGA GAAGCTGGTA 300

1342

CACCTTGACT TGGGTGAGTA GGCACGGTAG GAGCTTTTCT CATAATCTCC TCTACCGTTG	360
ACAAGGAATC AGCCATGAGT TCTTCAGTTG AAGGTTTCATT TGCAGGAGTG CGAACTACTG	420
CCTCATCTTC TTTCAGAACT TCATCATAGC CTTTACTTTT TTCTAAATCT CTCAGAATCT	480
GCTCTTTAAA GCGTAATTC TCTTCTGCTC TTGACTTTTC ACTCAAAAGT TTTTCTCTCT	540
TGTTGAGAAT CCATAATATT AGAGCTGAGA AGTCCAAAAA AAGCAATCTA TGATACTTTT	600
CCTAACGGAT TTTGTCATTT CCCAGACCAT ATCATACCAT GTTCCCGCTG CAAAGGTTGA	660
CTGGGAA	667

(2) INFORMATION FOR SEQ ID NO: 315:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1483 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 315:

GGAAGCCAA GGTATTTTAT CGGATGAAGT TGTTACTAGT TCTTCACCGA TGGCTACAAA	60
AGAGTCTTCT AATGCAATTA CTAATGATTT AGATAATTCA CCAACTGTTA ATCAGAATCG	120
TTCTGCTGAA ATGATTGCCT CTAATTCAAC CACTAATGGT TTAGATAATT CGTTAAGTGT	180
TAATAGTATC AGCTCTAATG GTACTATTTC TTCCAATTCA CAATTAGACA ACAGAACAGT	240
TGAATCTACA GTAACATCTA CTAATGAAA TAAGAGTTAT AAGGAAGATG TTATAAGTGA	300
CAGAATTATC AAAAAAGAAT TTGAAGATAC TGCTTTAAGT GTAAAAGATT ATGGTGCGGT	360
AGGTGATGGG ATTCATGATG ATCGACAAGC AATTCAGAT GCAATAGATG CTGCAGCTCA	420
AGGGCTAGGT GGAGGAAATG TATATTTTCC TGAAGGAAGT TATTTAGTAA AAGAAATTGT	480
TTTTTTAAAA AGTCATACAC ACTTAGAATT GAATGAGAAA GCTACAATTC TAAATGGTAT	540
AAATATTAAG AATCACCCCTT CCATTGTTTT TATGACAGGT TTATTTACGG ATGATGGTGC	600
GCAAGTAGAA TGGGGCCCAA CAGAAGATAT TAGTTATTCT GGTGGTACGA TTGATATGAA	660
CGGTGCTTTG AATGAAGAAG GAACTAAAGC AAAAAATCTA CCACTTATAA ATTCTTCAGG	720
TGCATTTGCT ATTGGGAATT CAAATAACGT AACTATAAAA AATGTAACAT TCAAGGATAG	780
TTATCAAGGG CATGCTATTC AAATGCAGG TTCGAAAAAT GTATTAGTTG ATAATTCTCG	840
TTTTCTTGGG CAAGCCTTAC CCAAAACGAT GAAGGATGGG CAAATCATAA GTAAGGAGAG	900
CATTCAGATT GAACCATTAA CTAGAAAAGG TTTTCCTTAT GCCTTGAATG ATGATGGGAA	960
AAAATCTGAA AATGTGACTA TTCAAAATTC CTATTTTGGC AAAAGTGATA AATCTGGGGA	1020

1343

ATTAGTAACA GCAATTGGCA CACACTATCA AACATTGTCG ACACAGAACC CCTCTAATAT	1080
TAAAATTCAA AATAATCATT TTGATAACAT GATGTATGCA GGTGTACGTT TTACAGGATT	1140
CACTGATGTA TTAATCAAAG GAAATCGCTT TGATAAGAAA GTTAAAGGAG AGAGTGATACA	1200
TTATCGAGAA AGCGGAGCAG CTTTAGTAAA TGCTTATAGC TATAAAAACA CTAAAGACCT	1260
ATTAGATTTA AATAAACAGG TGGTTATCGC CGAAATATA TTTAATATTG CCGATCCTAA	1320
AACAAAAGCG ATACGAGTTG CAAAAGATAG TGCAGAAWT TTAGGAAAAG TATCAGATAT	1380
TACTGTAAACA AAAAATGTAA TTAATAATAA TTCTAAGGAA ACAGAACAAC CAAATATTGA	1440
ATTATTACGA GTTAGTGATA ATTTAGTAGT CTCAGAGAAT AGT	1483

(2) INFORMATION FOR SEQ ID NO: 316:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2453 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 316:

CCTGAACGCT TTTTATAAA TATCATAAAG CCAATCTGAT TTATCAAGTG TGTCTAAGCG	60
ACGCGAATTA AAATTCATTG CATACTCCAT CGCTTCTAAA AAACCTCATTT TTGAAAGAC	120
GTTAAATCA TCTAATTCT GACTCCAATA TAATAACAAA ACCAATCCCA TAATATCCTC	180
TGGTTGATTA TTCAATAAAT TTAAGTTGGT TTCATAAAC CCTGGAGTTC CAAATAGAGG	240
CAACTTTTTT TCTTCAATTT GAGTTTCTTT CCTTAGGGCA TGCTCAAAGT CTATAATATA	300
AATATTATTT CTATTATCAA TAAGTATATT ATTAAATGAT AAATCTCTAT AGGAAAGATT	360
ATATTGGAG TTTATTATCT CCATATAATC AATTAATGTT AAAAACCAAT CATAAGAGCC	420
ACTAACCATTA TTATACTCGC TTAATTTATC TGCAATAATA AACTCAAATT CCACAAAATA	480
CGAATTCCTT ATGTAAAAAT CGTTAAAAAC TTTTGGAGTA AATTCCTCCT TTTCCAATTC	540
TACTAATATT TCTCTTTCAT TTATTAAACG ATTCACAGAA TCTCTATTG TAAATCAAC	600
CAACGATAAA TCACTAGCTT CTTTAAATAA AGAATAAACT CGCTTTTGAG TATTAAATAC	660
TTTATAAACT CCACCTTTGG CATTTTGTAG AATCACTTCC AAAATAATAT ATTGATCAGG	720
AATAGTGTTA TATCTTGGA TATAGTAATC CCTTATTGGA ACATTCACAT TTGAAGGGAT	780
TTTCTTATCT CTTTATCCT TGAAAGTGCT ATCTTTTACG AACTCCCCAT ATCTGTAATA	840
TACAACCTCG CTAAGTTGAA ATCTGAAATC TGATGGTATG TTTACACCCT TTACACCTTT	900

1344

ATACAATATT TCTAATTGT GTAACAAACG TTGAAACTCT TTATTATCTT TTGGATAAAT	960
TGTAATGAAT TTCCCGACTT GTGAATAACC ATTAAGCCCT GTATTTTGCA AAGAAAGTTC	1020
TTTAATGCTA ACCAAAATTT TGAAATTAT CTTCTTCTCT CTAGAAAATA TAAATCAAA	1080
GAATTTTTTA GCAACCAAT TAGCATTTAA TATTGAAGCG CTCAGGTGTA TTTTAAATCC	1140
CTTAGATTGG GTGATATTAG ACGGCAAAAT ATATAACCA TGTTCATCAC TAAATTTATC	1200
ACTAATTTTA TATTCTAATA ATAAATTATG GTATGCGTCT TCTATTTTCTAG TTTTATAGTC	1260
CAAATAGTTT AAATACTTTT CGTAATTCAT ATTAAGAAAT CTTCTCCATA AATTTTGTAGA	1320
CCATCATTTA AAGCCAAACA ATTTAAAGCG TGATAATAAA TGTGATAAT CAATGTAAT	1380
TTCAGTCTCT TATTTTGTA TTCCTTCACC AATAATTTTA TGCTATATCT ATTTTCTCGA	1440
GGCAATTTAT AGGACTTCAA GATAAAACCA TAAAGAGAT AAGATTATA ATCTGACAAT	1500
CCAGTTTCAG AATAATTTT TAGAAAAATA TCTAGTGATT CTGATAATTC ATCCGGAATA	1560
ATCTTTTAA CATCGTATTT ATTTTTCATA TCGGCCACTC TTCCTTAAAA AGCTCACAAAT	1620
AAAATTTTAA ATTTCTATAC AACAATCCGA GAGTAGTCTC ACAATTTGAA CATTTACAT	1680
CACTCTTAAT ATATAAAAA TGAATTAATC AGAAACCTCT GACTAAGATT TCCTAATTAA	1740
TTCACTTTCT ATATCATAGT AAGGAATTCT ATTATCCCTA ATTGAAAATT GAAATTTTAT	1800
GTTTTATATA TTAACAATTA TGCGGATTGT AAATCTTGTC TAACAAAATG GCAAGTGCTA	1860
CTATGTGCCC CAGAAGCGA TGCAACGCTA TTTTGAATTG AAAGAGCATA ATCATCCATA	1920
TCATTTAAGT CACGGATTAG CAATGCTTCC TTCTCTCTTC CGACAATTCC AAATTTTCTA	1980
ATTACCTTTT CAGGATTATC AAAAAATTCT CCAACAACCT CCATATTTCC TTGAAGTTCA	2040
TTCAAGAAAG CTTTCATTTG ACTACTCATT ATATAGCTCC TTTTCTATTA CTTTATTGG	2100
AATCAAACT TACTTGTAACA TTGGAACAC CTCTATTCTA CGCTTTCATA TTGCTGCATG	2160
ACACTTTCAA AATCAAATG CTAAAAATA TTTTTTAAAG CTTAATTTAG ATTTAATTAC	2220
ATATATCTCA AAAAATTGTT TTGAAATTAG TAAATTAAAA TAGGTTTCTG TACTTATAGG	2280
AACTAGTTAT AAAAATTCTG CCCATCATAA AATATCTATT TAAGTAAAC AAAAATTTTA	2340
TAATTTTTTG ATTTTAAAGT GACTATAATC TCCTATCTAT AAATACCATT CGCAGGACCT	2400
GGATCAATCC CTCTAGCCAT CTTATGAACT TGAGTTCCTC CAGACAGTCC CGG	2453

(2) INFORMATION FOR SEQ ID NO: 317:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1049 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1345

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 317:

CCAATTTGAA GGCTCTAAAA CAATGGAAAA GTGCTACACA GATGTGACAG AATTGCCAT	60
TCCAGCagTA CTCAAAACT TTA CTTATCA CCAGTTT TAG ATGGCTTTAA CAGCGAAATT	120
ATTGCTTTTA ATCTTTCTTG TTCGCCTAAT TTAGAATAAG TACAAACAAT GTTGAACAG	180
GCATTCAAAG AGAAGCACTA TGAGAATACG ATTCTCCATA GTGACCAAGG CTGGCAATAC	240
CAACACGATT CTTATCATCG GTTCCTAGAG AGTAAGGGAA TTCAAGCATC CATGTCACGC	300
AAGGGCAACA GCCCAGACAA CGGCATGATG GAATCTTTCT TTGGCATT TT GAAATCGGAG	360
ATGTTTTATG GTTATGAGAA GAACTTTAGA TCTTTAGAAA ACCTTGAACA AGCTATTGTG	420
GACTACATTG ATTATTACAA CAACAAGAGA ATTAAGGTAA AGCTAAAAGG ACTTAGCCCT	480
GTGCAATACA GAACTAAATC CTTCCGATAA ATTAATTGTC TAACTTTGG GGTGCAGTAC	540
ATTTTGGTA TATATAAAAT TTGTAGGAGC TATATCTACA ATTTTATATT CCCAGTTTAT	600
GGATGTAAC TACTATATTC ACAATGTTAT CCAGTGTTT TTCTCTAATA TTTAAGGAGT	660
GTTCTGTTTC TCGAATAAAT TCTTCAAAGT TTAACCCGTC AACTTGTTCC TGAACAAGAA	720
AATAATCATC CACGATATAA AATTCATCAG TTAAATTAGT AGTATAACTT TTATCGGCTA	780
ATTTTTTAG CATGTGAGCT TCATTTTTTA TATCATCAAG AGCTGTCCAT TCTCCTCAG	840
CATCATAATT CACAAAAGGT CTTGACTGCT TGATGATTAC TTTTGGCCG TCCGATTTTC	900
TAATTGCCCG ATAAACATTT CCTTTATTTG ATCTCTTAAT AATTTTTTCC ATTTGTATT	960
TATTTATGTC AGAGTCCTTA CTTGAAACTT CACATGTGGT TTGAAAATAA ATCCTTTTTT	1020
CTTCTTCTGA AAATAAATCC ATTTCCGG	1049

(2) INFORMATION FOR SEQ ID NO: 318:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 776 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 318:

TTAGTTGGTT AGAATCAGAA AATCGCCGAA GTGGTTATTT ATTTTGAAT AAATTAAACG	60
AACCAATTAC AGCAAGAGGA GTTGCTCAAC AGTTAAAAA TTATGCTGAT AAATACAAAA	120
TGAATCCTAA AGTAATTAC CCTCATTCCT TTAGGCATTT ATTTGCTAAG AATTTT TAG	180

1346

CGAAGTATAA TGATATTGCC TTGCTTGCAG ATTTGATGGG ACACGAAAGT ATAGAAACTA	240
CTCGAATTTA TCTAAGGAAA ACAGCTACTG AACACAAAA TATTGTAGAT AAAATTGTTA	300
ATTGGTAAAA AATAACAGGT GGTCAAACCTG ACTACCTGCT ATTTTGTGA TTATGGCTCT	360
TATTATGGGA ATATACCTAT GAATTGGGTT GTTATAAAAA TAAAAGATAT TTTTCAATA	420
AATACAGGTC TTTCTTACAA GAAGGGCGAT TTAAGCATT AATAAAAGG TGTAGAATT	480
ATACGTGGTG GTAATATTAA GCCTTAGAA TTTTCTCTGT TGGATAATGA TTAACATT	540
GATACACAAT TCATCTCCTC TGAGCAAGTT TATTTAAAC ATAATCAGCT AATAACACCT	600
GTATCAACCT CTTTAGAACA TATTGGAAG TTTGCAAGAA TCGAGAAAGA CTATGATGGT	660
GTGTGGCTG GTGGATGTAT TTTCAATTA ACACCATTCG AAAGTCAGA GATGATGTCA	720
AAATGTCTAT TATGTAACCT GTCCTCTCCG TTATTTTATA AACAATTGAA AGCAAT	776

(2) INFORMATION FOR SEQ ID NO: 319:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 658 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 319:

TGCAATGCGG CGGCTGCATA CGCTTGATCC GGCTACCTGC CCATTGACC ACCAAGCGAA	60
ACATCGCATC GAGCGAGCAC GTACTCGGAT GGAAGCCGGT CTTGTCGATC AGGATGATCT	120
GGACGAAGAG CATCAGGGG CCGCGCCACC GAAGTGTTCG CCAGGCTCAA GGCGCGCATG	180
CCCAGCGGCG AGGATCTCGT CGTGACCCAT GCGATGCCT GCTTGCCGAA TATCATGGTG	240
GAAAATGGCC GCTTTTCTGG ATTCATCGAC TGTGGCCGCG TGGGTGTGGC GGACCGCTAT	300
CAGGACATAG CGTTGGCTAC CCGTGATATT GCTGAAGAGC TTGGCGGCGA ATGGGCTGAC	360
CGCTTCCTCG TGCTTTACGG TATCGCCGCT CCCGATTGCG AGCGCATCGC CTTCTATCGC	420
CTTCTTGACG AGTTCTTCTG AGCGGGACTC TGGGGTTCGA TGTCGACAGC CCGCCTAATG	480
AGCGGGCTTT TTTTTCCTGA GGCTGGACGA CCTCGCGGAG TTCTACCGGC AGTGCAAATC	540
CGTCGGCATC CAGGAAACCA GCAGCGGCTA TCCGCGCATC CATGCCCCCG AACTGCAGGA	600
GTGGGGAGGC ACGATGGCCG CTTTGGTCCC GGATCAATTC GCGCGACCGG ATCGATCC	658

(2) INFORMATION FOR SEQ ID NO: 320:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1475 base pairs
 - (B) TYPE: nucleic acid

1347

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 320:

CCGGCTTAAT TTTTAGAAAA CGTGGGCAGG GAACCTTTGT TCTCTCTCGT GGCAGCTCAA	60
AAAGAAAATT AATCGTTCCA GAAAGAGATA TCCGGGGACT GACAAAAATA TCTGAAGATG	120
CTCATTTCTAC AATTGACTCG AGGATTATTC ACTTCAAATT AGAATTTGCA AATGAATTTT	180
TAGCAGAAAA ACTACAGGTC GCTTTGCAGA GTCCAGTTTA TAATATTTAC CGCCTGCGTA	240
TTATTGACGG TAAACCTTAT GTTCTGGAAC AAACCTTATAT GAGTACCGAT GTTATTCCAG	300
GTATTACTGA AGATATTTTA CAAAAATCGA TTTACAATTA CATTGAAGGA AAGTTAGGAT	360
TGCATATTGC CAGTGCTACA AAAATCTTAC GAGCTTCCTC TAGTTCAGAA AATGAGCAAC	420
ATTACTTGCA GCTCCTTCCA ACGGAACCGG TATTTGAAGT AGAACAAGTG GCTTATTTGG	480
ATAACGGAAC TCCGTTTGAG TACTCGATTA GTCGTCATCG CTATGATTTA TTTGAATTTA	540
ATTCTTTTGC ATTACGACAT TCCTCCTAGG AGAAAAATGT AAAATGAAGC CAATCTTTTA	600
CAGACTCTAG TTTAAGAAAA ATTTAAACA GGGCAAGAAG GTCCCATCTA TGCTTAAATG	660
GTCTCTCTTT TCTAAATAAG ATGGCTTTAA AAGAGTGATC GTTGATCCA TCATGTTGAA	720
AAATATCTTC GTATAGCTTA TAGAGTAGGT ACTGAAATG TTACCTGAT CTACTTCTTA	780
TAGTTATTTA GTTTTAAATA GTGTTTCAAA CATCTTACA CTGACGAGAA GTTTTTGAGT	840
CTTTCTTGT AACACATATA GTATACTGTG GTTAGAATAG TAGACTGTGA CTTCTAACAA	900
ATTGCTAGAA ATGAATTTCA ATCTCCCAAT TTATTTGTTT ATATCTTCTT TTAATATATT	960
AAATAAATTC TAAATCATAA TCATTTAAAA AAATTTTATT TTTTATTTTT CATTACGAAT	1020
AATATAGATG AAGGGGAAAG AGTATGAAAA CAGAACTGTT TCTTTTGCTA TTAGTTCAAA	1080
AGGAGAAAAA ATGAAAGTAG AAAATATTTT GTATAGGGTG GATCATCGTA AATTGTTTGA	1140
TAATATTTCT TTTGATACTT CGAGTTCAGA CGTGACATTA ATTACTGGTA AAAATGGTAC	1200
AGGAAAGTCA ACTTTACTAT AGTAGATTGA AACTAGAATA GTACACATCT ACTTCTAAAA	1260
TATTGTTAGA AATCGATTTG ACTATCCTGA TCTATTTGTC CTGTTCTTAT TTCATTTTCA	1320
TATATCTCAA ATTGAGTATG ACGAAGTGGC CTCCCATGTC CTGGGAACGC ACTTTCTTCA	1380
TATTTTTCAT ATCTTGAAT CCATCGATAA AGACTATTGG GATGAATTTT TAAAGTTGAA	1440
CTAATCATTT TTACAGGATG AGATTTACAG CAGAG	1475

(2) INFORMATION FOR SEQ ID NO: 321:

1348

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 560 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 321:

GAAATATATA TACTTCATCT TAATAGTGAG CAAGCTAAAC TTAGCATTTT ATGCCCTCAT	60
ATGGGATGTT CTTTGACTAA ATAATATGAT TATCGAGATA TATCTGGATA AATGAACTAA	120
TAAGTCTGAC GCGTAGACTT ATCAAAGTCA TTGGCATAACA CCACTATGAA CTCGTTGGTC	180
TGTTCAAATC CCAACACATT ACCTGAGAAG AAAGTTGCAA TGTGTTTTTT GGTGCGGGTT	240
TGAATTTAAA AAATTTGTTA TGTAGTACCT AATCTAAGGA ATTAGAACAA TGCCTCTAAT	300
TTTTCTTTAA TACACTGAAA CATTGATGAT TCTGGCTGTA TTTTGTAAAC AGCTCTTCTT	360
TGCTCCTGGA AAATATCTTC AGAAGTTATA TTCTCTATTC CTAACGCTAC TTGAGTTTTT	420
TTTCTAAAT ATTCTTTTCC GTTGCCATCT TTAGAAAAAT CATAACCTTC CCTATCTACG	480
CTGTTACACA AATTAGCTAA AAAA r ACTCT GGGGTTGGGA AAGGAAGATA AGAAaCGTAT	540
TTAGCCCATA ATCTATAAAG	560

(2) INFORMATION FOR SEQ ID NO: 322:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 643 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 322:

CCGCCCCGCC ACCGCTGCCT ATCCTCGGGA GAGGGTCACC TGGAGTGAAC CTAGAACGAT	60
AGACACGGTG CGGTACGACC TCGTACTACT TTCGCCGACG GCCTCGTCCG TTGTCATCCA	120
CGAACTGATC GGACATGGGT GCGAACACTT CAGAGAAAAA ATCGTTGGAC TGCCTGTCGG	180
GCCTGAGGAA CTACGGGTGG TGGCTTTTCC GAAGAACGGC TCCGGGTTTG ATGACGAGGG	240
TACACCCTCC GAAGAGATTG TACTTGTGGA GAACGGCATT GTGAGGCACG CTGTCAGGGA	300
TCGGGCGACT GGAGGAATGG CGCCTTTTTC CGGTTTGACC AAAGTGGCAT CACATGGTGT	360
CAAACCTGGC TCAAGATGTA CGCATCTCAA GCGGGAAGGG GAATCGTCAC AGGAAGGAGT	420
TACCGGAGTA CCCGCCGAAC GCACCGTTTG GATAGAGCAT TTTTCTGCAG CGAACTACCA	480
TTCAGGTCGA GCCTTTTTCG GGTCTGGCCT TGCCTGGGTA GGCAGCCGAG AAGAACTCTT	540

1349

ATATCCCTTA ATGCCTTTCA CCATGTCAAT TGATATCTAC GAACTGGCCA GCTTATTGTG 600
GCATTTAGAC GGTCAAACGG AACGAGCAG TAGGGTACTG TGC 643

(2) INFORMATION FOR SEQ ID NO: 323:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 780 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 323:

GGTACCCACT CATTCTTGAT GAATTGTGAA CAGTTGCCCT TGGGTCGTTT TCGGAGTTGA 60
AGTCAAGAAG AGGAAAAA CAAAAGGAG AAATACTCAT GGCAGTAATT TCAATGAAAC 120
AACTTCTTGA GGCTGGTGTA CACTTTGGTC ACCAACTCG TCGCTGGAAT CCTAAGATGG 180
CTAAGTACAT CTTTACTGAA CGTAACGGAA TCCACGTTAT CGACTTGCAA CAACTGTAA 240
AATACGCTGA CCAAGCATAC GACTTCATGC GTGATGCAGC AGCTAACGAT GCAGTTGTAT 300
TGTTCTGTTG TACTAAGAAA CAAGCAGCTG ATGCAGTTGC TGAAGAAGCA GTACGTTTCA 360
GTCAATACTT CATCAACCAC CGTTGGTTGG GTGGAACCTT TACAACTGG GGAACAATCC 420
AAAAACGTAT CGCTCGTTTG AAAGAAATTA AACGTATGGA AGAAGATGGA ACTTTCGAAG 480
TTCTTCCTAA GAAAGAAGTT GCACTTCTTA ACAAACAACG TGCGCGTCTT GAAAAATTCT 540
TGGGCGGTAT CGAAGATATG CCTCGTATCC CAGATGTGAT GTACGTATG ACCCACATAA 600
AGAGCAAATC GCTGTAAAG AAGCTAAAA ATGGGAATC CCAGTTGTAG CGATGGTTGA 660
CACCAATACT GATCCAGATG ATATCGATGT AATCATCCCA GCTAACGATG ACGCTATCCG 720
TGCTGTATAA TTGATCACAG CTAAATTGGC TGACGCTATT ATCGAAGGAC GTCAAGGTGT 780

(2) INFORMATION FOR SEQ ID NO: 324:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 624 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 324:

CGGGAAAAAT CAGATTGTGG GTTCAGATAT CGAATTAGCC AAGGCTATCG CAACAAAAC 60
AGGTGTCGAA TTGGAACAT CTCCCATGAG TTTTGATAAT GTACTGGCTA GTGTTCAATC 120

1350

AGGAAAAGCC GACCTTGCCA TATCAGGTGT TTCTAAGACA GATGAACGGA GCAAGGTGTT	180
TGACTTTTCC ATTCCCTACT ATACTGCAAA AAATAAACTC ATTGTCAAAA AATCTGACTT	240
GACTACTTAT CAGTCTGTAA ACGACTTGGC GCAGAAAAAG GTTGGAGCGC AGAAAGGTTT	300
GATTCAAGAG ACGATGCGA AAGATTGCT ACAAAATTCT TCCCTCGTAT CTCTGCCTAA	360
AAATGGGAAT TTAATCACAG ATTTAAAATC AGGACAAGTG GATGCCGTTA TCTTTGAAGA	420
ACCTGTTTCC AAGGGATTG TGGAAATAA TCCTGATTTA GCAATCGCAG ACCTCAATTT	480
TGAAAAAGAG CAAGATGATT CCTACGCGT AGCCATgAAA AAAGATAGCA AGAAATTGAA	540
AGAGGCAGTT CGATAAAACC ATTCAAAAGT TGAAGGAGTC TGGGGAATTA GACAAACTCA	600
TTGAGGAAGC CTTATAAGCA TCCA	624

(2) INFORMATION FOR SEQ ID NO: 325:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1237 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 325:

TCTTATGAAG CCGAAGCGTG ATTTATGGCG GATAGTTTG GTCTGCAGAA AGTGACAAAT	60
CTAGTGCCAT CAGCGTATAT GGAATCTnTG GCTGAGAAAC AGTCCCGGGG TGAAGTACT	120
TATGAGCAGG TTTATGAGGA TGCAACGGCT TATCATCATA CCATTGATGC GAGTACAGAG	180
GAGGCAGACT TGGTTTCTCT ACGTATTGTA GAAGTATTGT CTCGAAGAGG CTTTAGCTTC	240
AGTCCTGCGA TCTTACTTGC TATTCATAAG GAGTTGTTTC AAGATATATT TGAACCCCTCG	300
ATTCGGGTAG GTCAATTTTCG TCAGACTAAT ATCACAAGA ATGAACCTGT TTTGAATGGT	360
GAAAGTGTG TGTACTCTGA TTAATCCATG ATTCAAATGA CCTTGGATTA TGATTTTAAT	420
CAGGAAAAAC AAGTTGCATA TCGGACACTA ACCCAGGCGG ATATGGTTAA AAAAATCCAG	480
CATTTTATTT CAGGAATCTG GCAGATTCAT CCATTTTCGCG AAGGAAACAC TCGGACGGTA	540
ACGGTATTTT TGATTTCAGTA TCTTCGTGAG TTTGGTTTTG ATATTGATAA TACACCATTT	600
CAGCAACATT CCAAGTATTT TCGTGATGCC TTAGTGTTAG ATAATGCAAA GATTTTACAG	660
CGACGTCCTG AGTTTTTAAC AGCTTTTTTT GAAAATCTCT TGCTCGGTGG TCAAAATGAT	720
TTGTCTTCAG AAAAAATGTA TCTAGATTTA GACCTCGATC TTTCATAATC CTAATACTGA	780
GTAAACATTG AATTTTAGGA AAAAATGAAG TAAATATTCT CACAAGAAAA CGTATATCAT	840
CAAAGTTTGG CTCTTTGTCA ATTGTAGTGG GTTGAAGAAA AGCTAAGTTC GAGAAAGGGC	900

1351

AAATTTGGGC CTTTCCTTTT TGATGTTTCTAG AGCGATAAAA ATCCGGTTTT TTGAAGTTTT	960
CAAAGTTTCG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGGCGCTT	1020
CCAGTTTGGC ATTAGAATAG TGTAGTTGAA GGGCGTTGAT AACCTTTTCT TTATCTTTGA	1080
GGAAGGGTTT AAAGACAGTC TGAAAAATAG GATGAACCTG CTTAAGATTG TCCTCGATAA	1140
GTTGAAAAA TTTCTCCGGG TCCTTATTCT GAAAGTGAAG CAGCAAGAGT TTGAAGAGCC	1200
GATAGTGATG TATCAAGTCT TGTGAATAGC TCAAAAG	1237

(2) INFORMATION FOR SEQ ID NO: 326:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 461 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 326:

TTTGATTTTT CTGAATTAGA AGAGATTGAA TTGCCTGCAT CTCTAGAATA TATTGGAACA	60
AGTGCATTTT CTTTGTAGTCA AAAATTGAAA AAGCTAACCT TTTCTCAAG TTCAAAATTA	120
GAATTAATAT CACATGAGGC TTTTGCTAAT TTATCAAAT TAGAGAACT AACATTACCA	180
AAATCGGTTA AAACATTAGG AAGTAATCTA TTTAGACTCA CTTACTAGCTT AAAACATGTT	240
GATGTTGAAG AAGGAAATGA ATCGTTTGCC TCAGTTGATG GTGTTTTGTT TTCAAAGAT	300
AAAACCCAAT TAATTATTAT TCCAAGTCAA AAAAATGACG AAAGTTATAA AACGCCTAAG	360
GAGACAAAAG AACTTGCATC ATATTGCTT AATAAAATTT CTTACTTGAA AAAACTCGAA	420
TTGAATGAAG GTTTAGAAAA AATCGGTACT TTGCAATTG C	461

(2) INFORMATION FOR SEQ ID NO: 327:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 327:

TAACATTTAG GTACCTCTTC TTAACAAAGT TCAATAGTAA CAATTAATAT TTAAACAAT	60
ATATCAAACA TCAATGACTA GAATACTTGC ATCATCCTTC TTCCATAGA TTGGATCAAT	120
AGCAGAAGAA TTAATCTCA TCTTAATTAA CTCTTCAAAA GTTTTATTTT GATTATTTTG	180

1352

ATAGAATTCA TAAAAGCCAT CGCTCATPAA AACAAATTGT TCACTAGTAA CATCTATTGT	240
ATTAATAATA GCATGGTCTA AAAATCTCTC ATCCAACGAA CCTATCCAGT ACCCACTCGG	300
TTGATTAGAT AATTTTCTGA TTTTGTGTA AATAATTTT TTATTTAAAA CACTATTGT	360
ACCAATPGAA TCTTTTATCT CATTTTCCCT TTTTCAAAT AAGTTATCTA CTCTATGATC	420
AGTTATTTC ATTTCTGTTA CTAACATGAC GCAGTCACCT AGCATCATAT ACTCCAACCT	480
TTTTCTGAA AGTTTAGCAA ATATTGGTAA GCGATAATAT AGTATATTGA AACTAGAATA	540
GTACACCTCT ACTTCTAAAA CATTGTTAGA AATCGATTG ACTGTCCTGA TTGATTGTCT	600
CTATTATTAT TTCATTTTAC TATACTCTGT TAATTTATAT GAGTTTAAAC CGATTTCATC	660
TTTAACCTCG AGTAAAGCAG TTTCAAATAT TTGTTAAGA GTTTTGATT CTTTACAATT	720
AACCGACAAA CTTTCTGATA AAATATGTAC AACTTCTGAG ACTGAATAAC CTATCTCCTC	780
TTTAGAATTA TATAAATCTG TAGCTCCACC AATAATCCAA AAATACTGAT TTTGTGAACC	840
TACAATATCC TCATTTTCTA CGGAACCTCC TTGTATCGAA CAAATTTTAT TTATCTTTAC	900
CATAATACTT CAACCTTTT AGTGTCAAAA GTAAACCAAT TCCTGTCACT GTTAAGAATA	960
GTTCATAAT CTATTTCGAA CCAGTCTTTG GTAATTTTG TTTKACATCT ACTATYTCCT	1020
TAGATTTATT AATATGATT TCAGTTTCTC TGCCATCTCC AACTATTTTA TAGTTTACTT	1080
CTTCTGTCTT ATTATCTTGT TTATTGTCGA TCTTGTCATT CATTTGCTA TTATCTTTAC	1140
TTGAGTTAAA CTCTCCGTTT TCTGGTTAC TATCAATTAC ATTATTGAA TTAGATTGTT	1200
TTTCTCTTT GTTTTTTCT TTTTCGTTT TATCACTTAA ATTATTGTT ACAATTTTGT	1260
AAAGCCCAT CTCCGTTACA ATATTGAAAT TACCATCGCT ATCAGGTATA ACAGGTTCTT	1320
TCCCATTTGC ATTAGATTG ATGAATGATA TATACTTACC GGATAAATTA TAAATTTGGT	1380
TATTTAAAAC GGTATTTTTA CCCTTTGAAT CCTCAATAAC AATTCCTTCT TTACCC	1436

(2) INFORMATION FOR SEQ ID NO: 328:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 646 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 328:

CCGGCAGACA GGAGAAGGTG TTAAATATCA ATCTCAAATG GTTCGTCAAT GGTTCCTGAT	60
ACGTATTTTC CGTCTTTCTT CCGTTGCTTG ACACACTCTG TGAGGAGATA TTCGATTGCT	120
CCATTGACTG AACGAAAGTC GTCTTCTGCC CATGATGCGA GTGCAGCGTA TAACTTTGTT	180

1353

GAGAGTCGAA GGGGGATCTG CTTTTTTTGA GCTTCAGCCA TCTTTAGTAA AGGCTTCCTG	240
TGTTGACAAT TGGTTGTGCA TCATGATTGC CACAAAGAAC GACAAGGAGA TTTGAAACCA	300
TGGCAGCTTT TCGTTCTTCG TCAAGTTCTA CCAATTCCCC TTCATTGAGC CGTTCTAGTG	360
CCATTTC AAC CATTCCCTACA GCACCATCTA CAATCATCTT CCGTGCATCA ATAATGGCAG	420
ATGCTTGTG GCGTTGAAGC ATAACGGCAG CAATTTCTGG AGCATAAGCT AGGTAAGTGA	480
TACGTGCTTC AAGGATTTC AAGCCAGCAT CCTCAACACG ACTTTGGATT TCTTCACGAA	540
TACGGGTAGC AACAAATTTCG CTAGAGCCAC GGAGACTACC TTCATCTGCG TGCCCATCAC	600
CCGGAGTATC CACATTAGGA GACACATCGT AAGGATAGAT GCGGAC	646

(2) INFORMATION FOR SEQ ID NO: 329:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1653 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 329:

GTTGCAGGTG CAGTAGGTGT TACTTCAGAT ACATTTGAAC GTGCAGAGGC TCTTTTGTAG	60
GCAGGAGCGG ATGCGATTGT TATTGATACT GCACATGGTC ATTCGTCAGG TGTCTTGCCT	120
AAAATTGCCG AGATTCTGTC TCATTTCCCA GATCGGACTT TGATTGCTGG AAATATTGCT	180
ACTGCTGAAG GTGCACGTGC CCTTTATGAA GCGGGTGTAG ACGTTGTAA GGTGGTATT	240
GGACCAGGTT CTATCTGTAC TACTCGTGTG ATTGCTGGTG TTGGTGTTC GCAAGTAACA	300
GCTATCTACG ATGCTGCAGC TGTGCGCGC GAATATGGTA AAACGATTAT TGCTGACGGT	360
GGGATCAAGT ATTCTGGAGA TATTGTAAAA GCACTTGCTG CAGGTGGAAA TGCTGTTATG	420
CTTGGATCTA TGTTTGCTGG AACTGATGAA GCTCCAGGCG AAACGAAAT CTTCCAAGGA	480
CGTAAATCA AGACTTACCG TGGTATGGGA TCAATTGCTG CTATGAAGAA AGGTTCAAGC	540
GACCGTTATT TCCAAGGTTG TGTCATGAA GCAAACAAGC TTGTTCCAGA AGGAATTGAA	600
GGTCGTGTTG CTTATAAAGG AGCGGCAGCT GATATTGTTT TCCAAATGAT TGGTGGTATT	660
CGCTCTGGTA TGGGTTACTG TGGTGCAGCT AACCTTAAAG AACTACACGA TAATGCTCAA	720
TTTATTGAAA TGTCTGGTGC TGGTTTGAAA GAAAGCCATC CTCATGATGT GCAAATTACT	780
AATGAGGCAC CAAATTATTC TATGTAAAA ACAATGAAA GAACTCCAGT GAAAACAGGA	840
GTTCTTTTAC AATGTTGTCA ATTTCCATTT ACAGCAGCTT TACCATCCTG AATAGTGAAG	900

1354

ATACCTAGAT TTCTGGCAG ATTTTGAAGA TGGTCTAAGC TTGTTGTTGT GATAAAGGTT	960
TGGATTGATT GAGAAATCGT TTCTAATAAT TTAACTGTC TAGTGTGTC AAGTTCACTC	1020
ATCACATCGT CAAGCAGTAA TATAGGAGAT TCTGTGGTAA TGCTTTCCAT TAATTGATT	1080
TCTGCTAATT TTATCGAGAG GACGAGACTA CGATGTTGAC CTGGGCTTCC GAACTAGCA	1140
TCCATCCCAT TTATATAAAA AGAAATGTCA TCTCGATGAG GACCGACACC AGTATTCTTT	1200
TTAAATAAAT CTCTGGATCT ACTTTTTTCT AAAGCAATTT TGAAAGATTC GGATAAGTTT	1260
TGTTTGTCAG TTATATTGAC AGAAGATTGA TAGGATATTG ACAACTCTTC GATCTGATTA	1320
GAGAGTTCAA AATGTTTCTT ACGCCCAAAT GATTCTAGTT TTTTATGAA ATCTAAGCGG	1380
TGATTCAATTA CACGACATCC ATAATCAACT AGCTGATCAT CTAACACAGA AAGGAATGTT	1440
TCATCTATTT TTGAGCTGA TTTTAGGTAA GTGTTTCTTT GCTTTAGGAT GTGGTTATAA	1500
TTGGTTAAGT CAGATAAATA GATTGGCTTA ATTTGCCCAA GTTCCATATC AATGAATTTT	1560
CGTCGAATCG AAGGTGCTCC TTTAATTAGT TGTAAATCTT CAGGAGCAAA TAAGACAACA	1620
TTTATGTGTC CTACATAATC TGAAAGGCGT GCC	1653

(2) INFORMATION FOR SEQ ID NO: 330:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1340 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 330:

GAAACACTGT ATTTCAAAGC ATTTTGTGTT AGTTTAAAT TACTCCCAT CTCTTTTCC	60
AAACGTACAA TATATCCAAA ACCATTCAA ATACTAGATT CTATTTTTA TAATATCACT	120
AAATCCACCT AATTATAGGA CGTTTTCAGA TTTTGTAGTCC CAGTCCAGT ACCGGAGAAA	180
TATTGTTTTA ATATAATATC TCTTTTGTG TTCTAAGCTC TTTAAAGCAA AAGAACAAGT	240
AAAGAGTCAA GACAAGGATA AAAAGTCCAT ATTAGGGCAA ATAAAAGCT TTAAGACAGA	300
TGACAAATCT AAGTCAAATA AGAAAGACCA TAGCAAAGGT GCAGAGAGAT AAATATTGGC	360
GGTCTTCGGA CTGCCTTTAT TTTTATATCC ATTTTCAA TCAAATTTAT TCAGACTATA	420
TATGCACATA TACACTTAAA TTCATATAAA AACATGGCTT GTAAAAAATT ACTTTAATCA	480
CAATAATCGC ATTTAAAATT GTGATGTTG CAAGCTAAAT TACGGACTTC ACTTGAAGT	540
TTCCCTTGT ATCTTTTATA ATAGATAGAA AATTGCTGG CAGATGAATA TCCAACAGAT	600
TCTGCTATCT CTTTTATAGG TAGTTCAGTG TTTAAAGAA GAGTTTCAGC TACATTCATT	660

1355

CTTTTCTTT GAGTGACTC TGTAATGCTT TGACAATATT TTTCTTAAA TAAATTTTTT	720
AATTTAGTAC CACTCATTTT AGATATTTTT TCAAGCGTGC CTTGATTAC ATTCGTTGCA	780
AAATGATCAT CTAAGAATCT TGCTACATCT TCAAGTGCTT TATCATCATC AATTTCAATT	840
TTATATTTTT TTCTATTAA GTATGTGTCA ATTACTATAC TTATCCATTC ATTTGCCTTT	900
GCTTTAAAGA AAAAATCAGC GGCAGGAGCG TCCATCTTAC AATTTAATAT TTCCATTGCC	960
ACTCTTTCTA AGGCCTTTGT AAGTATTATT TGATTCGGTT GAAGCAAGGT TGAATAAAAA	1020
GATTCTGGAT TAATGTTAAT AGATGCTAAA TGTTTTTCTA TTAGCTCTTT TTTAAAACCM	1080
ATGGAAACAG CAAGATAACA ACAATTCTCG TGTAATAAAA AAACAAAATT ATCTTTTATA	1140
TTATCAAAT CAAAAGTACA TAGAGAGTTT GCGGTAATAG TTTGATACGG ATTAAACTTT	1200
TCTCCGTTTG CACTGACAAT GTAACTTGAA TAAATTGAAA CATAGTCTGA CATACTATAA	1260
GTGCTATTTT GAACTACTTC CTCTTTGATA TAAAAATCAT GTATATCGAT AATGAAGATG	1320
CCTCCTTCAT AAAACCGTA	1340

(2) INFORMATION FOR SEQ ID NO: 331:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 607 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 331:

TATGTTCTGT ATGAGTTTTT AAGTAGGAAA AACGTGCTAA CCTCTCAGAT TTTGGAACCT	60
GTAAAAGAAA CTCTTTTTC ACCCGTAGTA GTTGATAATG GGTTTGATCC GGCCTTATTT	120
GAAATTGAGA AAAACAATT GCTAGCAAGT TTAGCAGCTG ATATGGATGA TTCTTTTAT	180
TTTGCACATA AAGAATTGGA TAAATTGTTT TTTCATGATG AACGTCTTCA ATTGGAATAT	240
AGTGATTAC GAAATCGTAT TTTAGCTGAA ACTCCACAAA GTTCTTATTC TTGTTTCCAA	300
GAATTTTtag CCAATGATCG AATAGATTTC TTTTCTAG GTGATTTTAA TGAGGTTGAA	360
ATTCAAAATG TATTAGAATC ATTTGGCTTT AAAGGTCGAA AAGGAGATGT GAAGGTTGAG	420
TATTGTCAAC CTATTCTAA TATCCTTCAG GAAGGTATGG TTCGGAAAAA TGTGGGACAA	480
TCCATTTTGG AATTAGGTTA TCATTACTGT TCTAAATATG GTGATGAGCA ACATTTACCC	540
ATGGATTGAA TGAATGGTTT ACTTGGTGGA TTTGCTCACT CTAAGCTCTT TACAAATGTC	600
CGGAAA	607

1356

(2) INFORMATION FOR SEQ ID NO: 332:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 900 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 332:

TTAAATACC GAATTTTGT TTGTCCTCTA TTCAACATT GTGAATCGCC TCAGGCAGAG	60
AACCGATACT AAAGATATAA CCAAAATAGT TGTCATTGTC TTTACCGATA TCAATCTTAT	120
TGGTTAAATC AAAATCCAGT TCGTCAATTG CGCCATCGAT GTCTTGATTG ATTTCCAAAA	180
GTTTTGTAAT GAGGTTACCC GTACCGCCTG GGATAATCCC TAACTTAGGA ATGTAGTCTC	240
TCTCATCAAT ACCTGAAATG ACTTCATTGA CAGTTCCATC TCCACCAAAC ACAACCACTG	300
CATCATACTG CTCACGAGAA GCTTCTTCAG CAAAATGTGT TGCATCCAGC GCTTTTTCGG	360
TAATTTTGGT TTCAACATAT TCAAAGTATT CTTTTCCTTT ATTCTCCAGC TTTTCTTTGT	420
AATCCAAAGC CTTCTCGCCA CCAGAAGTAG GGTGATAAT TACCATTGCT TTTTTCATTG	480
ATTTTATCCT TAATTTTAAA CAGAAATGTT TACATTTCTG CGTATGCAAG TAAATGTAAT	540
CCTATTATAC AATGAAATA CAGAAAAGAG AAATCTGACG TACTGGAGAT TAATACGCTT	600
TTATTCTATT TTCCCATCGC CTAATACAT CCTTTAAGGG TTCATCCAAG TAAGAATAGG	660
CCTTATCCTT GATCCAATCA GGAATACCGT AAGTGCCTC TGCTAwGCTA CAAGTGATTG	720
CTGCGAGAGT ATCACTGTCG CCACCAAGTG AGATGGCATT TCTTATCGCA TCTTCGAAGT	780
CTCTACTTTC AAGAAAGGCG ATAATGGCTT GAGGGACAGT TTCCTGACAT GTTTCGTTAA	840
AACGATAGTT AGGACGGATT TCATCTAAAG TTTGAGATAG ATTGTAATCG TATTCTTTTT	900

(2) INFORMATION FOR SEQ ID NO: 333:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 533 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 333:

CCTTTCTGGC AACTGGTCT TGAATACGG CAAAACCTCT GAAAATATCT ATGCTGGAAT	60
GGACGAGGAA TACCGTCGTT ATCAGCCTGC CATCATCACT TGGTACGAAA CAGCCAAACA	120
TGCTTTTGAT CGCGGACAGA TTGGCAAAAT ATGGGTGGAA TCGAAAACGA CCTCAAGGGC	180

1357

GGTCTCTACA GCTTTAAATC CAAGTTCAAT CCGACCATTG AGGAATTCGC TGGTGAGTTC	240
AACCTGCCAA CTAATCCTCT TTACCACCTC TCCAATCTGG CCTACACTCT CAGAAAGAAA	300
CTGCGCAGaA GcATTAAACAG AAAGGAAGCC TATGACCTTT AAACCTCTCA GCCAAGAAGA	360
ATTATCCAG CATACCTCAG CTAGATCCCA ACGCTCTTTT ATGCAGACCG TAGAAATGGC	420
AGAGCTGCTG AGCAAGCGTG GCTTCAGTAC CCAGTATGTC GGCTACACTG ACCCACAAGG	480
GAAGGTAGTG GTGTCAGCTG TCCTCTACAG CATGCCTATG ACTGGTGGCC TTC	533

(2) INFORMATION FOR SEQ ID NO: 334:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 544 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 334:

CCAGCAAACT AGGAAGCTAG CCGTAGTTGC TCAAAGCACA GCTTTGAGGT TGTAGATAAG	60
ACTGACGAAG TCATGTACAA AACACTGTTT TGAGGTTGCA GATAGAAGTG ACGAAGTCAC	120
TCAAAACACT GTTTTGAGGT TGCAGATAGA ACTGACGAAG TCACTCAAAA CACTGTTTTG	180
AGGTTGCAGA TAGAACTGAC GAAGTCanna ACCACACCTA CGGCAAAGTG AATCTGAAGT	240
GGTTTGAAGA GAGTACAACT TGTCTTTTAG AAAAGGAGCC TATAATGAAA GTCTTTCAGC	300
ATGTAAATAT CGTGACTTGT GATCAAGATT TCCATGTTTA TCTTGATGGA ATCTTAGCAG	360
TCAAGGATTC TCAAATCGTC TATGTCGGTC AAGATAAGCC ACGGTTTTTA GAGCAAGCTG	420
AGCAGATTAT AGACTATCAG GGAGCTTGA TTATGCCTGG TTTGGTCAAT TGTCACACCC	480
ATTCTGCAAT GACAGGCTG AGAGGGATCC GAGATGACAG CAATCTCCAT GAATGGCTCA	540
ATGA	544

(2) INFORMATION FOR SEQ ID NO: 335:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 349 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 335:

CCAGGAACTC AAATGTAAGT AGGGGTTCTT TTTTGTATA TTTTCAAAT AACGCCTCTA	60
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1358

CACTATTTGT AGCAAATTCA CCAACTACAG TTGTATCTTA GTTAAATATA GTTAGAATAT	120
GTAAGTGAGT ACCAGATATA CCAAGACATC GTCACCATCT AAGGTATATT CAAAATACAA	180
AAGTTGACCA ACTAGATTTC TGAATATCCT TATATATCCA TTCTTAAAT TGGTTTAAAT	240
AGCGTAGTCT TTTAACTAG TTTTGAGAAT CCAAAAAATC TTCCTACATA TGTAAGAAGA	300
TTTTTTAGTT CAGAATGATT AGATTTAGCT AATGGATACC TATCCTACC	349

(2) INFORMATION FOR SEQ ID NO: 336:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1206 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 336:

CTCCGATAAC CACACCAGCA ATGGAAATAA TTCCATCGTT AGCATCAAGA ACACCCGCAC	60
GCAGGATATT TAAACGACCT GCAAAATTG AATCAATTTC GTGATTGTG TCTGACGCTA	120
AATTTCAGT TCAAGTTAGC CATCAAGAAG TCTTCTCTGG GTGACTTGTA GTCCAAGCAT	180
TTTTTAGGAT AGTTGTTAAT CCACTTTTCG ATGAATGCGA CTTCTTTGGG AGTCATTTTC	240
TTGGTTCCCT TAGGTAACCA TCTACGAATG AGCCTGTTGT GATTCTCATT AGTTCCCGGG	300
ATCCTCTAGA GTCGACCTGC AGGCATGCAA GCTTGGCACT GGCCGTCGTT TTACAACGTC	360
GATGACTGGG GAAAACCTG GCGTTACCCA ACTTAATCGC CTTGCAGCAC ATCCCCCTTT	420
CGCCAGCTGG CGTAATAGCG AAGAGGCCCG CACCGATCGC CCTTCCCAAC AGTTGCGCAG	480
CCTGAATGGC GAATGGGGCC TGATGCGGTA TTTTCTCCTT ACGCATCTGT GCGGTATTTT	540
ACACCGCATA TGGTGCACTC TCAGTACAAT CTGCTCTGAT GCCGCATAGT TAAGCCAGCC	600
CCGACACCCG CCAACACCCG CTGACGCGCC CTGACGGGCT TGTCTGCTCC CGGCATCCGC	660
TTACAGACAA GCTGTGACCG TCTCCGGGAG CTGCATGTGT CAGAAGTTT CACCGTCATC	720
ACCGAAACGC GCGAAACGAA AGGGCCTCGT GATACGCCTA TTTTATAGG TTAATGTCAT	780
GATAAGGATG GTTTCTTAGA CGTCAAGTGG CACTTATCGG GGAAATGTGC GCCGAGACCC	840
TATTTGTTTA TTTGTCTAAA TACATTCAA TATGTATCCG CTCGTGAGAA AATAAACCTG	900
ATAAATGCGT CAATAATATT GAAAAATGAA GAGTATGAGT ATTCTACATT TCCGTGTCGC	960
CCTTATACCC TTTTGTGCGG CATGTTGCCT TCCTGTTTTT GCTCACCAG AAAACGCTGG	1020
TGAAAGTTTA AGATGCTGAA AAATCATTTG GGTGCACAAC TGGGGTTACA TCCAACCTGA	1080
ATCTCCATCA GCAGTTAAGA TCCTCTGACA GTTGACACG CCGCAAGAAC TATTCCTGAT	1140

1359

GAATGAGCAA CTTTAAAAAG TCCTGCGAAT GTTGGGGCGG TAATAATCCC CGTGTGTAG 1200
GCCCCG 1206

(2) INFORMATION FOR SEQ ID NO: 337:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 813 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 337:

CTGCTCAACT CAGACAGTCA AATTCTGAC TTTACCAAAA GAACCATCAA AAAAGTTGCT 60
GAAAAAGGCC ATCAGGTAT TATTACGACA GGTCGCCCTT ACCGTATGTC AAAAGATTTT 120
TACCGTGAAC TGGGCTTAGA CACTCCTATG ATTAACCTCA ACGGATCCCT TACTCATTTA 180
CCAGACCAAG TTTGGGATTT TGAAGAGTGT TTGACTGTAG ACAAAAATA TCTGCTAGAT 240
ATGGTTCAAC GTTCAGAGGA CATTCAAGCC GATTTTATCG CTGGAGAATA TCGTAAAAAA 300
TTCTACATTA CAAATCCCAA TGAAGAAATT GCCAATCCCA AACTATTGG TGTAGAAGCT 360
TTCCAGCCTG AAGATCAATT CCAGCCTGAA TTGGTGACCA AGGACCCTAA CTGTATCCTC 420
TTGCAGACTA GAGCCAGTGA CAAATATTCC TTGGCAAAAG AAATGAACGC CTTCTACCAG 480
CATCAACTTT CTATCAATAC CTGGGGAGGT CCGCTCAATA TCCTTGAATG TACCCCAAAA 540
GGTGTCAACA AGGCCTTTGC TTTGGACTAC TTGCTCAAGA TAATGAATCG TGACAAAAAA 600
GATTTGATTG CCTTTGGAGA TGAACACAAT GATACCGAAA TGCTCGCTTT TGCTGGGAAG 660
GGTTATGCCA TGAAGAAATGC CAATCCAGAG CTACTCCCTT ATGCAGATGA GCAAATTTCC 720
CTTACCAACG ACCAAGATGG GGTGCCAAA ACCCTACAAG ACTTATTCTT ATAACCTATA 780
CTGATACTCA ATGAGGGGCA AAGAGCGAAC TTA 813

(2) INFORMATION FOR SEQ ID NO: 338:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 683 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 338:

CCTAGATAAA TGATATAATT CTATTATTGT TCGTAAAAAT TAAAGGAGA TTGATGATGG 60

1360

ACAAATTATT TAAACTAAAA GAGAACGGTA CAGACGTTTCG TACAGAGGTT CTCGCTGGTT	120
TAACAACTTT CTTTGCAATG AGCTATATTC TCTTTGTAAA CCCACAAATA CTTTCACAAA	180
CAGGAATGCC TGCTCAGGGC GTCTTCCTAG CGACGATTAT TGGTGCAGTA GCGGGTACCT	240
TGATGATGGC TTTTATGCT AACTTACCTT ATGCCCCAAGC GCCAGGTATG GGA CTCAATG	300
CCTTCTTTAC CTTTACAGTT GTATTCGGGC TTGGTTATTC TTGGCAAGAA GCCCTAGCTA	360
TGGTCTTCAT CTGTGGGATT ATTTCAATGA TTATTACCTT GACAAATGTT CGTAAAATGA	420
TCATTGAATC GATTCCCAAT GCTCTTCGCT CAGCTATTTT AGCTGGTATC GGTGCTCTCC	480
TTGCCTATGT AGGGATTAAG AATGCTGGAC TTTTGAAATT CACGATTGAT CCAGGCAACT	540
ATACTGTGT AGGAGAAGGG GCTGACAAAG CTCAAGCAAC GATTGCAGCA AACTCTTCAG	600
CAGTTCAGG ATTGGTCAGC TTTAATAATC CAGCTGTTTT AGTGGCTCTT GCAGGACTTG	660
CCATTACTAT CTTCTTTGTC ATC	683

(2) INFORMATION FOR SEQ ID NO: 339:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 852 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 339:

CTACTTTACA TGGAAGTAGT CACTGAATTC CAGTTAGAAA TTACTTTGTA ACTACGTTTT	60
GAGGAGGAGT AAAATGCTTT CCTACGTTTCG ATATTACCCA CTAGCGATAG CTAAATTAAT	120
GTGCTGTGC TCTCCTAAAA TCTGCTGATT TATTACTGAC TAATACAGGA GGTTTTTTTT	180
ATGgACAGAC AATCATATCT GCTATTGGTG TTTATATTTT CACCAGTATC GATTATTTAA	240
TTATTTTAAT TATTTTATTT GCACAGCTAT CACAGAATAA ACAGAAATGG CATATTTATG	300
CGGGGCAATA TCTAGGCACA GGCTTACTTG TAGGGGCGAG TTTAGTTGCT GCTTATGTCG	360
TTAATTTCTG GCCTGAAGAA TGGATGGTTG GATTGCTTGG TTTAATCCCT ATCTATTTAG	420
GGATTGCTT TGCAATTGTT GGAGAAGATG CGGAAGAAGA AGAGGAAGAA ATTATTGAAA	480
GATTAGAACA AAGCAAGGCA AATCAACTGT TTTGGACAGT TACATTGCTG ACAATTGCGT	540
CTGGCGGAGA TAATTTAGGT ATCTATATAC CTTATTTTGC TTCGTTAGAT TGTCACAGA	600
CCCTCGTGGC CTTGCTTGTG TTTGTAATCG GCATAATTAT CTTTTCGAG ATTAGTCGGG	660
TGTTATCCTC TATTCGGTTA ATATTCGAGA CAATTGAAAA ATACGAGCGA ATCATTGTGC	720
CCTTAGTATT CATTCTACTT GGACTATACA TCATGTATGA AAATGGCACG ATAGAGACTT	780

1361

TTCTGATCGT GTAGATTTTT TTGTTTCACT AGGGATTAG CCCGAGCTCA AATCAGCTCT 840
CTGATTTTCA GA 852

(2) INFORMATION FOR SEQ ID NO: 340:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 754 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 340:

CCGCACAAAA GCGCATAGTA TCAAGATTCT ATAAAGCCTT GATACTATGC CTTTTTAATG 60
GATAAATAGT TAGTCTTTTT TAAAGACCGG ATCTTTCAAA CTCTGCATAC TGGCATTGAT 120
CACCGCGCCT AGGATAACAA TTTTAGCAAT CAAGATAAAC CAAAACATCA TAACAACAAG 180
AAGAACGGAA CCTAAATTC GGACATCCAC CAAATGATGG ACATAGTAAT TGAGATAACT 240
AGAGAACAGA GTTAGTAAAC CTAAATCAC TAAGAGAACA AAGGCACTGC CTGGTAGGGT 300
ATAGCTAATT TTCCTGTTAG ATAGATTGGG AAGAAAATAA TAAAGCATGA CCAAGATAGC 360
AAAGAGGAGG GCGTAAATCA GAGGACCTGC CAACCCTTGT AAAGCCTGAT AGATAATGCC 420
ATCTTTTGTC CAATAATGAG CAAGTAAAGC CAAATCATC TGACCAAATA AGATCAAAAA 480
CAAGGCAAC GCAAAGAGGA GCTGCAACCA AAAGTACTA GGAGACTTAG CATCTGATGG 540
GAAATAAGTC CACGACTCTT TTCGACGCCA TAAGCCTTGT TAAAGCTTT TTGCAAGAAA 600
TTCATAGATT TTGAAAACT CCATAACGCC GATAAACAG AAAAACTCA TAAACCTGTT 660
GAAGGTTGCG TCAAGACTTC TCTGGCTATT TTTCCACAC CTTCATAGAG GCTTGGGGGG 720
CAGACGTCTT TCATAAAGCC CAAAATTCT CCA 754

(2) INFORMATION FOR SEQ ID NO: 341:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 707 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 341:

GGGGATAACT CTAGGAGTAC CGCTATTACT CGACTTAATG AGTGACAAG AAGTCAGGAT 60
TTTTATGCAG GTTGGGCGCT TCATCAGACA GGGAAGATT ACAGCGACTA TTATGGAAGT 120

1362

CAAGGTTTGC TTTATTATTT GCTGACTTAC GTGAGTCAGG GCGGATTTT CTTTGCCATC	180
TTTGAGTGGT TAGCCTTGGT AGCAGGAGGA TTTTTCCTTT TTAGATCAGC GGACACCTTG	240
ACAGAGCAAG GAGACCAAGC TGGACATCTG GTGACTATTT TTTACATGCT AGTTACAGGT	300
CTTGCTTTTG GTGGAGGCTA TGCAGACTCTT TTAGCGCTTC CTTTCTTATT CGCAGCCTTT	360
AGTTTAGTTG CGGCTTACCT AAGCAATCCA AGCCATGATA AGGGATTTGT ACGGATTGGG	420
CTAGCTTTGG CAGGCGGATT TTTCTTTGCT CCCTTATCAT CGCTCCTGTT TATTGCTGTA	480
GTGAGTTTAG GCTTGTGGT CTTTAACCTT GGGCATAGAC GCTTTGCGCA TGGGTTTTAT	540
CAGTTTCTTG CAGTGGCTTT AGGTTTTTCA CTTGTCTTTT ATCCAACGTC CTACTATAGT	600
GCTGCAACAG GAAGTTTTGG GGATGCGWTT AGTGGTATTC GTTATCCTAT TGACAGTATT	660
CGCTTTGATT TTACTTCTAA AATTTTAGAG AATATGTTTT TTAAAGG	707

(2) INFORMATION FOR SEQ ID NO: 342:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 762 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 342:

GGATTTTGAA AAACCATACC GATTGACGA CGTATATTCC AAACATTTTC CTCAGTCAAA	60
CGTTGGCCAT CAATTACAAT CTCTCCGAT TCTGCTTCCA GTAAGCCATC AATTAATCGA	120
ACCGTCGTTG ATTTACCACT ACCATTATGC CCTACAATCG AAAGCCATTC TCCACGTTTC	180
ACGTGAAAgT AATATCCTTC ACATCGTAGT AGTTCTGATT TTCTTTATAG CGAAAAGAAA	240
GATTTTTTAC ATCAATTATT GATTTCATTT CGAACCAAAT GTCCCTTTAA ATACATAGGC	300
ACTACCCTTG AAATAGTCAT AGCCAGAGTA GATAGTGAAA AATAAGGCTA CATAAAGTAG	360
AACTTGACCA AGCAAAGTCC AATGTAATAG CAAGAAAATA ATGGCAAACA TCTGACTAAA	420
AGTTTTAATT TTTCCAGGCA TTGCTGCTGC TAAAATTGTT CCACCAGTTT CAACCAATAA	480
AAGCCTTAAA CCTGTCACAG CTAATCAGC ACAGATAATC ACTGCAACAA TCCAAGCCGG	540
AGCCATACCT AACTCAATCA ACATAATAAA AGCCGACATA ACTAGTAACT TATCCGCCAT	600
AGGATCTGCA AATTACCAA AATTACTGAC CACATTCCAT TTACGAGCTA AATATCCATC	660
TAAATAGTCG GTAATACTGG CAACAGCAAA GATAATAGCT GCAACTATAT GACTCTCTAT	720
CGAATTTTCCT ATCGTTAAAA TAAAGATAAA AATAGGTATA AA	762

(2) INFORMATION FOR SEQ ID NO: 343:

1363

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 482 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 343:

CTTTTGATAC ACTTAACTA TGAATACAAA TCTCAAGCCC AAAC TTCAGC GTTTTGCTTC	60
TGCGACTGCC TTTGCCTGTC CTATCTGTCA AGAAAATCTG ACTCTGTTAG AGACTAATTT	120
CAAGTGCTGC AACCGTCATT CTTTGACTT GCGAAATTT GGCTATGTCA ATCTAGTCCC	180
TCAAATCAAG CAATCTGCTA ACTACGACAA GGAAAATTTT CAAAACCGTC AACAAATCCT	240
AGAAGCCGGC TTTTACCAAG CTATCTTAGA TGCTGTATCT GACTTGCTTG CAAGCTCAAA	300
AACTACCACA ACAATTTTGG ATATCGGTTG TGGTGAAGGA TTCTATTCTC GCAAATACA	360
AGAAAGTCAC TCTGAAAAA CTTTCTATGC CTTTGACATC TCCAAAGATT CAGTCCAAAT	420
CGCGGCTAAA AGTGAACCCA ACTGGCAGT CAATTGGTTC GTTGGCGACT TGGCAGGACT	480
TC	482

(2) INFORMATION FOR SEQ ID NO: 344:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 520 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 344:

TTTATTTTAA TAAAGTCAAT ACCTGTCTTT ACTTTTTCIT AAAAAAGTT TATTATGTTC	60
TTTAAGGAGG TGTAACACAT GAAAATAAAT AATAAACTCG TTGGAGAACG TATTCAAAAT	120
ATCCGTTTAA GCCATGGCGA CTCTATGGAA AAATTGGAG AAAAAATTAA TACTAGCAAA	180
GGTACAGTTA ACAACTGGGA AAAAGGTGCG AATTACCAA ATAAAGAAA CCTACTAAAA	240
ATTGCATCTA TTGGAAAAAT GAGTGTGAA GAGTTACTCT ACGGCGATTA CAATACTTAT	300
CTACACTTAA AGATTATGGA TTTAGCTCCT GAATGTATAA AAAATTATGA TGAGTATAAC	360
TCTTTACACG ATGATATAAC AAATAAAGCG TTACAGATCG CTCAAAATAC CATTTCTAAG	420
ATTGATTATC AAATTCAGA CGAAACGATC AAAAAATTTA TTGATTTAGC TATCGAACAA	480
TCGAGAGATT TGCAAGGAAA TTTGTTGAAA AATAACGGGT	520

1364

(2) INFORMATION FOR SEQ ID NO: 345:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1003 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 345:

```
GCATCAAATC CGCCATCAAA GAAGTTCTCT GGATTACCA AGACCAGTCA AATAGCTTAG      60
AAGTGCTTAA TGACAAGTAC AATGTTCACT ACTGGAATGA CTGGGAAGTT GGAGACACGG      120
GAACCATTGG TGAGCGCTAT GGTGCCGTTG TTAAGAAACA CGACATTATC AATAAGCTTC      180
TCAAACAGTT GGAACCAAT CCTTGAACC GCCGCAATAT TATTTCGCTC TGGGATTACC      240
AAGCTTTTGA AGAACAGAT GGGCTGCTCC CGTGCGCCTT TCAGACCATG TTTGATGTTT      300
GGCGTGTTGA TGGGGAATC TATCTGGATG CGACCTTGAC CCAGCGCTCC AATGATATGC      360
TGGTGGCCCA CCACATCAAC GCTATGCAGT ATGTGGCTTT GCAGATGATG ATTGCCAAAC      420
ATTTTGGCTG GAAGGTTGGG AAGTTCTTCT ACTTCATCAA CAACCTCCAT ATCTATGATA      480
ATCAATTTGA ACAAGCTCAG GAATTGCTCC GTCGGGAGCC GTCAAAGTGC CAACCACGCT      540
TGGTTTTTAA TGTTCTTGAT GGGACTAATT TCTTTGATAT CAAAGCAGAA GATTTTGAGT      600
TGGTGGATTA TGACCCTGTT AAGCCACAGT TGAAGTTTGA CCTAGCTATT TAAAAGAATA      660
GAAAAAGAA GTTGAGAATA ATCCCAACTT CTTTGTGTTT TTAACGTGAT ACGCGGCGAC      720
GAGCTGCTTT TTTACGGTTT TCTTCGATGA AAGCTGCTTT TTGCTCTTCT GGTTCGATTA      780
CTTCTTTTTT AAATGCGTAT ACTGCACCTG CAACGGCAGC GACAGTTCCT GCGACACCTG      840
TTACAAGACC TTTAGCGAAT CCTTTAGCCA TGAGTCTTCC TCCTTTATAT TCTCAATCAG      900
CCAGCTCCTT CAAGAGGTCA CATTTTCTG ACTGACCTTT TTGTGTTATA ATAATAGTAA      960
CGAAAAAATG GGAATTTTTC AAGGAAAAAA GATGAGAACA AAA                        1003
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(2) INFORMATION FOR SEQ ID NO: 346:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 750 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 346:

```
CCGCACGTAC TATTCCAGAT GCCGAGGAAG TGGACCTCAT CTCGTTGGC GCAACTGGTC      60
```

1365

TCAACGCCTT TGAACGCCTC TTGGTCGGCT CTTTCATCTGA ATACATACTC CGCCATGCTA	120
AGGTCGATTT GCTGGTTGTG AGAGAACAAG AAAAAACCTT ATAATCACAA AGAAAAGGAG	180
CCCCTAGCTC CTTTTGTTT ACGATTTATT TCTCTCTTTA TGGCGTTCGT AAGCCTTGAG	240
CTGGCGCTGC AGTTCCTTTT TAATAGCAGG TTCTGGAGCA TATTTTCTT CCCAATTATC	300
TGGTTTTAAG ATTTTATGGG TCACTGGATC AAAATGAGCC TTGCCATCTG GAAAAATTTT	360
CCCCATATTG GCCTGATGGA CAATATCAAA AATACGTTCT GGGTCCACCC CCATCAAGAC	420
AAAACGCGG TAGGTGAAGT AAAGCGTGC AATCAAGGCA TCCACTTGCC CTATCAAATC	480
TTGCTGAGCA GGTGCTTCTT TGGCTACTTT ATCTGCTGCC TTATCAAGGG CCTGATGAAG	540
TTGCGATACA GCTTGACCAA AATCTTCTTC AGAAGGACTG GCTGCTCGAA CAAACTCCAC	600
CAATTTCTCT ATTTTAAAC CAGCCCATG GGTGCACCC TCTAAATCCC AAGCTCGAGG	660
TTCTTCTTGG GTTCGTTTAT CCATCATGTG GTGGAAAGTC TTGACCTTAT TGAAATGATA	720
GTCAACGGCTG ACAAAGACTT TTTCTGAAGA	750

(2) INFORMATION FOR SEQ ID NO: 347:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 596 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 347:

CGCAACATAC GGATAACCTC CAAAGAATAT TTTTATATTA TAGCAAAGCT TTAAATGAA	60
TGTTAGAGTC TTGTTCAAAA CAATCATCAA AACCACGTGG ATGATGGTAT TCTACTAAGT	120
GTTCATCTTG AGGATAAGTG TACTTACCGC CAACTTCCCA GATAAATGGA TGGAAATCGT	180
ATTGCAAGCG ATCTTTTCGC ATTTTCCAAA GTTCTAGAAT CTCATTAGTA GAAGCCATGA	240
AGTTAGACCA GATATCATAG TGAACGGGA TAATGACTTT GGTACGCAGA TTTTCTGCCA	300
TACGAAGAAG GTCGATAGAT GTCAKTTTGT CTGGGATACC TACCGGATTT TCACCATAGT	360
TATTCAAAGC AACATCAATT TTAAAGTCTT TACCATGTTT TGCAAAATAG TTTGAGAAGT	420
GAGAATCTGC ACCATGATAG ATGGTTCCAC CTGGTGTTC AAAGATATAG TTAACAGCCT	480
TTTGAGCCAT TTCTTCATCT GTAACAGCCA AGCCAGCAGT TCACCGCCTG TCTCATCAGC	540
ACCGTTCACT GGGAGAGTTA CCAAGCAAGT ACGGTCAAAT GATTCTACTG CATGAA	596

(2) INFORMATION FOR SEQ ID NO: 348:

1366

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 673 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 348:

CAGAGTCAAC AGCCTGAGTT GAAGGCAACT TTAGACACAG CAGTTACGAC AGCTGAATGA	60
GCTCCTCCAT CAGTTTTTTC TTTAATGAGT CCAGCTACAT CTTCAACTTC GAGGCCGTTA	120
ATCACAATGT CAGCGCCTAC TTCTTTTGCA AGGGCAAGTT TGTCAATTGTT GATATCGACT	180
GCGATAACAT GAGCATTGAA TACTTTTTTA GCGTATTGAA CAGCGAGGTT ACCAAGTCCA	240
CCAGCACCGT AAAGAACAAC CCATTGGCCT GGTTCAACTT TTGCTTCTTT GATAGCTTTA	300
TAGGTTGTTA CTCCAGCACA TGTGATAGAA GAAGCTTGGG CTGGATCAAG TCCGTCAGGA	360
ACTTTGACAG CATAGTCAGC AGTTACGATA CATTGTTTCAG CCATACCACC GTCTACTGAG	420
TAGCCAGCAT TTTTCACTGT ACGGCAAAGG GTTTCGCGAC CAGTTGTACA GTATTGCGAA	480
GTGCCACATC CTTCAAAGAA CCAAGCAACG CTGACGCGGT CACCGACTTT AAGGCTTTTC	540
ACATCTGGAG CAATCTCTTT AACGATACCG ATACCTTCGT GCCCAAGAAC ACGTCCTGGG	600
ACTTGACCAA AGTCACCATG AGCAACGTGG AGGTCGGTGT GGCAAACGCC CACAGTATTC	660
ACTTCTACAA GTG	673

(2) INFORMATION FOR SEQ ID NO: 349:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 198 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 349:

GTACCCTACA AATGCTTTAC AGTATGGGTT GAGGGTGGTC AATGGAAC TAAGTAGGT	60
TGGACAGGAA CTTTGGATA TTCTGATTAC TTACATTCTA CTCGATATCA TACAGCAACT	120
GTTAGACATG GGGGTAGAAC CTCTAAGGAT TATGCAAAAC CTGAGGCATG GGCTAGAGCT	180
TCCCTCACCA AGATTCCG	198

(2) INFORMATION FOR SEQ ID NO: 350:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 891 base pairs
(B) TYPE: nucleic acid

1367

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 350:

GCTTCTTCTA TAGACAAAAA TATCATGGGT AAAATAATCA AGGCTATAGC TAGAAGGAGG	60
GACCAATCCA CTACTAATCC TAAGAACAAA AACTCAAGA GAGCAGAAGA GAGAGGTTCA	120
CTGGCACTGA TAACGGCAAC CACCAAAGGA GAAACCAAGG ACACAGCCTT CATGGAAATG	180
AAAAAAGCAA AAGCCGTTCC AAAGAAAGCG ATAATGAGGC AAATCAAGAT ACTCCAAATA	240
TCAAGAGTAA AGGAAAGCTG ATAAACCGGC GAGAGGACAT TGCTAAACAA ACCTGCCAAA	300
ATCATCCCCC ACCCAACCGT AGGAACAAAA CCATAACGCT TAGCAAAAGG TTGGGGCAAG	360
ATAACATTAA ACATAACACC CATGGCACTC AGCAACCTG TTATAAGAGC TAGCGGCGTC	420
ATGGATAACT GAGAGAGGTC TCCCTTTGTC GCCATCAAGC AAACACCCAG CATGGCAACC	480
AAAACATAGA AAACAGCGCT TTTTGACGCT CGTTTTGAT AAACCAAGCG ATTGTAAAAG	540
AGGATAAAGA CAGGGCTAAT AAAGTGTAAT ATAGTTGCTG TCGTAGCATT TGAGTATCTT	600
ACACAGAGAT AGAAAAATA CTGAAGTAA AAAATCCCCA AAATAGCATA GGCTAAAAAG	660
GGCAGGTAAT TTTTCTTGTC TCGCCAAATA TCTAGCACTT GCGATTTTAA TTGTATTGCA	720
GACCAATGA GTACAAGACT CCCTGCCAGT GTCAAACGCA TAGAGGTAAT CCAGCCCGAA	780
GACACCTGAT AATGAGTAA GAAGTACTCT CCTAAAATC CACAGATTCC CCATATTAAG	840
CCGGATAGGA GCGAATAAAT TTTTCCGTTA ACAATCTTTT TCTGATACTG A	891

(2) INFORMATION FOR SEQ ID NO: 351:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 325 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 351:

GAAAGCGTTC AATAGAACAT TGCTTTTTTA TTTTtagagt AAGCTAAGCG CTTCAGCATC	60
TGCGATGATG GTTACATCAG GGTGATTTG GAGGCTACTT GCAGGTAGGT TCTCAGTCAC	120
TGGGCCAGAT ACTGTTCCGG CAATGGCTTC TGCTTTTCGAC TCACCGTAAG CAAAAAGAAT	180
AATAGACTTG GCATCCAAAA TGTTTTTAAT CCCCATGAA ATAGCTTGGG TTGGGACGTC	240
TTCAATCTTG GCAAAGAAGC GTGCATGGC TTCGATAGTA GACTGGTCAA GTTCTACTAG	300

1368

ATGCGTTTGA CTGTCAAATG GAGTG

325

(2) INFORMATION FOR SEQ ID NO: 352:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 344 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 352:

CAAGAGCAGT TTGATGATTT TTGATAAGCA TGCGAATTTA AAATACAAAT ATGGCAATCG	60
CAAGTTTGG TGTAGAGGCT ATTATGTAGA TACGGTAGGC CGTAATCAGA AAGTGATAGC	120
TGAATATATT CAGAATCAAT TACAAGAAGA CAGAGTAGCA GACCTAGCTC ACGTTATTCG	180
AGTCAGTAGA TCCGTTTACT GCGGAAATAA ATAAGAGGAA GTAACGTAAG GTGCTTTAGC	240
ACCTGCTCGG GAAAGTGGT GCGGAGGAAG CTATTTTCAGG ATGCTTTGGC CCTGGCCGGT	300
AGAAGCGTTA TAGCCGCGAGA CTACGACACT TCACACTGGT GGTT	344

(2) INFORMATION FOR SEQ ID NO: 353:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 692 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 353:

CCCTATCCCT GCTATTGGGG CTGCTCTCAT TGCTGCTTTG GCACAAATCA GTCTTCCAAT	60
TGGACCTGTT CCCTTCACTC TGCAAAACTT TGCAATCGGC TTGATTCTAC TGTCTTTAGA	120
CCGAGAGAGG CTGTACTTTC TGCTGGACTC TATCTTCTTC TAGGTGCTAT CGGTCTTCCT	180
GTCTTTGCAG GAGGTGGAGC TGGTTTTCAG GCTTTAGTTG GCCCTACTGC AGGCTATCTT	240
TGGTTTATC TCGTTTACTC TGGACTTACT TCCTCTCTAA CCAACAGCAA GAGTGGTGT	300
GTTAAGATTT TTCTTGCAA CCTCTTGGGT GATGCCCTTG TCTTTGTCGG CGGGATTCTC	360
AGCTTGCAAT TCCTAGCTGG AATGGCATT GAAAAAGCTC TTGCTGTGGG GGTCTTCCC	420
TTTATCATTC CAGACCTTGG CAAACTTCTA GCTATTAGTT TTATTAGCCG TCCCCTACTT	480
CAACGCCTTA AAAATCAGGC TTACTTTACT AACTAAAAA GGATATCGAG TTATCATGAC	540
TCAATATCCT TTTCTTTTAT TTTGAAAAC TATACTCAAT GAAAATCAA GAGCAAATA	600
GGAAGCTAGC CGCAGGCTnG CAAAACACTG TTTTGAGGTT GTGGATGAAA CTGACGAGTA	660

1369

AnATCTCATA CATACGGCAA GGCAAAGCTG AC

692

(2) INFORMATION FOR SEQ ID NO: 354:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1005 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 354:

GTGATGGACT ACTGGTTCAA AACGCATCCA GAAGATTTT TCGATAATGT CGGACCTCTT	60
GTAGCCAGTA ACTTTTTTCA TACTTACACC GAAGATTTCC ACTTGATGAA GGAAATTGGA	120
GTTAATTCCT TCCGCACTTC CATCCAATGG AGTCGACTCA TCAAGAATTT AGAGACAGGT	180
GAGCCTGATC CAAAAGGTAT TGCTTTCTAC AATGCCATCA TTGAAGAAGC TAAAAAGAAC	240
CAGATGGATC TTGTGATGAA TTTACATCAT TTTGATTTAC CAGTGGAAC TCTTCAAAAA	300
TACGGTGGTT GGGAAAGCAA ACATGTAGTG GAGTTATTCG TGAAGTTTGC CAAGACTGCT	360
TTACATGCTT TTGGAGATAA GGTTTCATTAC TGGACAACTT TCAATGAGCC AATGGTCATT	420
CCAGAAGCAG GGTACTTATA TGCTTTCCAT TATCCAAATC TAAAAGGAAA GGGAAAAGAG	480
GCCGTACAAG TCATCTATAA TCTAAACCTT GCTAGTGCAA AAGTGATTCA ACTATATCGC	540
TCATTAGAAC TTGATGGAAG GATTGGGATT ATTTTAAACT TGACACCTGC TTATCCAAGA	600
AGTAATTCTC CAGAAGACTT AGAAGCAAGT CGATTTACAG ATGACTTCTT TAACAAAGTC	660
TTCTTGAATC CAGCTGTTAA AGGAACCTTC CCAGAAAGAT TGGTAAAACA GCTAGAGAGA	720
GATGGCGTGT TATGGAGTCA TACCGAAAAA GAGCTTCAAC TGATGAAATC AAATACGGTT	780
GATTTTCTTG GAGTAAACTA CTACCATCCA AAACGTGTTT AAGCACAAGC AAATCCTGAG	840
GAATATCAGA CGCCCTGGAT GCCAGACCAA TACTTCAAAG AGTATGAATG GCTGGAGCGT	900
CGCATGAATC CATATCGTGG TTGGGAAATT TTTCCGAAAG CCATTTATGA TATTGCTATG	960
ATTGTGAAGG AAGAATATGG TAATATCCCA TGGTTTATCA GTGAA	1005

(2) INFORMATION FOR SEQ ID NO: 355:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 973 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 355:

CCGACAAGCA ATATTAAAA GAGTAACTA TTAAGTAGTT AATTAACCGG TTTATTACTT	60
TATAGTGAAT CAAATATACT TAAGAAAAGA GGAAAGAATG AAAATTAATA AAAAATATCT	120
AGCAGGTTCA GTGGCAGTCC TTGCCCTAAG TGTGTGTTCC TATGAGCTTG GACGTTACCA	180
AGCTGGTCAG GATAAGAAAG AGTCTAATCG AGTTGCTTAT ATAGATGGTG ATCAGGCTGG	240
TCAAAAGGCA GAAAACTTGA CACCAGATGA AGTCAGTAAG AGGGAGGGGA TCAACGCCGA	300
ACAAATTGTT ATCAAGATTA CGGATCAAGG TTATGTGACC TCTCATGGAG ACCATTATCA	360
TTACTATAAT GGCAAGGTTT CTTATGATGC CATCATCAGT GAAGAGCTCC TCATGAAAGA	420
TCCGAATTAT CAGTTGAAGG ATTCAGACAT TGTCAATGAA ATCAAGGGTG GTTATGTCAT	480
TAAGGTAAAC GGTAAATACT ATGTTTACCT TAAGGATGCA GCTCATGCGG ATAATATTCG	540
GACAAAAGAA GAGATTAAAC GTCAGAAGCA GGAACGCAGT CATAATCATA ACTCAAGAGC	600
AGATAATGCT GTTGCTGCAG CCAGAGCCCA AGGACGTTAT ACAACGGATG ATGGGTATAT	660
CTTCAATGCA TCTGATATCA TTGAGGACAC GGGTGATGCT TATATCGTTC CTCACGGCGA	720
CCATTACCAT TACATTCTTA AGAATGAGTT ATCAGCTAGC GAGTTAGCTG CTGCAGAAGC	780
CTATTGGAAT GGGAAGCAGG GATCTCGTCC TTCTTCAAGT TCTAGTTATA ATGCAAAATCC	840
AGCTCAACCA AGATTGTCAG AGAACCACAA TCTGACTGTC ACTCCAACCT ATCATCAAAA	900
TCAAGGGGGA AACATTTCAA GCCTTTTACG TGAATTGTAT GCTAACCCTT ATCAGAACGC	960
CATGTGGGAT CTG	973

(2) INFORMATION FOR SEQ ID NO: 356:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 843 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 356:

GGTCGCATCT GCAATATCTG TCGCCTCCAC ATAAGCGACA CCAGCCTTGT CTGCTGCCCCG	60
TTTGACACGT TCTGCAGATT GACCCAGGAT GACCATCTTC TTGAGTCCAG TAATGTCCTGG	120
CACCAATTCTG TCAAACTCAT TGCCACGGTC CAAACCACCT GCAATCAAGA CGACCTTGCT	180
GTGTCAAAAT CCTGACAAGC TTTTGTAGTA GCCAAGATAT TAGTTGATTT ACTGTCGTTA	240
TAGAATTTAA CACsCTTGAT GTCATCCACA AACTGGAGAC GGTGTTTGAC ACCACCGAAG	300
GCTGAAAGAG TTTCTTTGAT GGTTTGATTG TCCACATCAC GAAGCTTGGC TACAGCAATA	360

1371

GTGCAAGGG CATTTCCAC ATTGTGGCTA CCTGGAACAC CGATTCATT CGCTGCCATG	420
ACTACTTCAC CACGGAAGTA GAGTTGACCA TCTTCCAGAT AAGCTCCATC AACCTTTTCA	480
AGTGTGAAA ATGGTACAAC AGTGGCTTCT GTCTTGGAAG TCAAGTCTTT TGCCAAGTCT	540
TGATTAAAGT TCAAGACAAG GAAATCAGCT GCTGTCATCT TGTCTGGAT ATTCCACTTG	600
GCTGCTACAT ATTCCGAAAA TGACCCATGG TAGTCGATAT GAGTTGGCAT GAGGTTGGTA	660
ATAACCGCAA TCTCTGGATG GAATTCCTGA ACACCCATGA GTTGAAAGA AGAAAGTTCC	720
ATAACAAGCG TGTCCTATC TGATGCTATT TGAGCAACCT GACTAGCTGG ATAGCCGATA	780
TTCCCTGATA AAAGACCATG TTGGCCAGCA GCAGTCAAAA CTTCCCGGGn TCCTCTAGAG	840
TCG	843

(2) INFORMATION FOR SEQ ID NO: 357:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 807 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 357:

TTTTTTTAT ATTTTTTTA TTTATTATTT TTTGGCAAAA AAGACCAATT TGCTTTGGAG	60
CATTGCTTCT GCATTAAATT GTCTATTTTT GCTCGTGCTG TTACGCTCTT TGTATCATGT	120
ATTAAGTAGC AAGTGCAACT TGCAAACTAC TAGTAAGAGG AGAAAAACAA AATGGTTATG	180
ACTGACCCAA TCGCAGACTT CTTAACTCGT ATTGTAATG CTAACCAAGC TAAACACGAA	240
GTACTTGAAG TACCTGCATC AAACATCAAA AAAGGGATTG CTGAAATCCT TAAACGCGAA	300
GGTTTTGTAA AAAACGTTGA AATCATTGAA GATGACAAAC AAGGCGTCAT CCGTGTATTT	360
CTTAAATACG GACCAAAATGG TGAGAAAGTT ATCACTAACT TGAAACGTGT TTCTAAACCA	420
GGACTTCGTG TCTACAAAAA ACGTGAAGAC CTTCCAAAAG TTCTTAACGG ACTTGGAAAT	480
GCCATCCTTT CAACTTCTGA AGGTTTGCTT ACTGATAAAG AAGCACGCCA AAAGAATGTT	540
GGTGGTGAGG TTATCGCTTA CGTTTGGTAA AATCAAGATA CAAAGCTCGT AAAGAACAAA	600
GCAAAATTAG GAAGTTGGAG AAGTTTGTCTT ACAAACAGGC CAACTTATCT ATTTTGCACA	660
GTCTTAGAG CGTGTTCAGT TCAGCTCTTG AGCTAAGTAA GTATCTGAAC CCCGTGAAAA	720
CTGGCCGTGC TGGCATGTTT GGGTAACAGG AGAATAATAA CATGTCACGT ATTGTAATA	780
AGTTCAGCTA AGGCCTTCGT AAAAGTT	807

1372

(2) INFORMATION FOR SEQ ID NO: 358:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 653 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 358:

CCCAGTATTT TTGTCCAAGC ACGACCAGAA AAGGATGATA CAGATCTGGA ATTGGCTCTC	60
TTAACCATCT tTGAACAAA TCCTCAGGCT CAGGTCATA TTTTCGGTGC CTTGGGTGGC	120
CGTATTGACC ATATGTTGGC CAATGTCTTT CTGCCTAGCA ATCCTAAGTT GGCACCCAT	180
ATGCATCAAA TAGAAATTGA GGATGGGCAA AACTTGATTA CTTATTGTCC AGAAGGAATC	240
AGTCAGCTAG AACCTCGTTC AGACTACGAC TATCTAGCCT TTATGCCAGT TCGGGATAGC	300
CAAGTATGAG TTGACAGAGG AAAATTTTTT CTTTAAAAA GTGTACGCTT CTAACGAATA	360
TATAGATAGG GAAGTGTCGG TAACTTGCCC AGATGGTTAT GTGGTCGTAC TGCATAGCAA	420
GGACAGGAGG TAGGATGGAA AGTTTACTTA TTCTATTATT AATTGCCAAT CTAGCTGGTC	480
TCTTTCTGAT TTGGCAAAGG CAGGATAGGC AGGAGAAACA CTTAAGTAAG AGCTTGGAGG	540
ATCAGGCAGA TCATTTGTCA GACCAGCTGG ATTACCGCTT TGACCAAGCC AGACAAGCCA	600
GCCAGTTAGA CCAAAAAGAT TTGGAAGTGG TTGTCAGCGA CCGTTTGCAA GAA	653

(2) INFORMATION FOR SEQ ID NO: 359:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 641 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 359:

CACCATGTGA TGTGACGCTG GCCACAGCTG TCAGAAATCT GGCGAGCCAT CGTGTGCAAT	60
GACTCTTCCC GATGTAATCT TGTTCATAGT CCTTTGATGA ATATGTTCAA GCTGTAGAAG	120
GTGCGCTTCC TGAACACTTA TCAACTGTTA CAGGCGAGTT GACCACTCAG GAAACAGATG	180
GCTGGTACAC ACTTGCCAAC ACTTCTTCAT CCCGCATTTA CCTAAAACAA GCCTTCCAAG	240
AAAATAGCAA CCTCCTAGAG CAAGTGGTAG AACCCCTGAC TATTATCACT GGTGGACACA	300
ACCACAAGGA CCAGTTGACC TATGCTTGGA AAACACTTTT GCAGAATGCG CCACATGATA	360
GTATCTGTGG CTGTAGCGTG GACGAAGTTC ACCGCGAGAT GGAAACGCGT TTTGCCAAGG	420

1373

TCAACCAAGT AGGAACTTT GTTAAAAGTA ACTTGCTCAA CGAGTGAAG GGTAATTTG	480
CTACGGATAA GGCTCAAAGT GACTATCTCT TTAAGTGCAT TAACACAGGC TTGCATGATA	540
AGGTGATAC TGTCAGCACA GTGATTGATG TGGCGACTTG TGATTTCAAG GAATTGCACC	600
CAACAGAAGG CTACAAAAG ATGGCTGCTC TTATCTTGCC G	641

(2) INFORMATION FOR SEQ ID NO: 360:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1958 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 360:

CCTCAAGGCC AATTTGAAGG CTCTAAAACA ATGGAAGAGT GCTACACAGA TGTGACAGAA	60
TTTGCCATTC CAGCAAGTAC TCAAAGCTT TACTTATCAC CAGTTTGTAG TGGCTTTAAT	120
AGCGAAATTA TTGCTTTTAA TCTTTCGACT TCACCCAAGT TAGAACAAGT ACAACAATG	180
TTAGAACAGG CATTCAAAGA GAAGCACTAC GAGAATACGA TTCTCCATAG TGACCAAGGC	240
TGGCAATATC AACACGATTC TTATCATCGG TTCCTAGAGA GTAAGGGAAT TCAAGCATCT	300
ATGTCACGCA AGGGCAACAG CCAAGACAAC GGTATGATGG AATCTTTCTT TGGCATTTTA	360
AAATCCGAAA TGTTTTATGG CTATGAGAAA ACATTTAAAT CACTTAACCA ATTGGAACAA	420
GCCATTATAG ACTATATTGA TTAATACAA AACAAACGAA TTAAGGTAAA ACTAAAAGGA	480
CTTAGTCCTG TGCAGTACAG AACTAAATCC TTTGGATAAA TTAATTGTCT AACTTTTTGG	540
GGTCAGTACA AAATCTTTCG TACTATGCGT TTTATTATTG AAAGACTTAT TGGACTTTCT	600
CTCAAATCGA GTTTTACTC AATTTTCTTA CTTGATTGGG ATTGAAATTC CAATTAATTT	660
CTCTGAGTAG AGTGTCTTGA TATTGGCTTC ATCAACAGAG GCCTTATCAA TTTTACGTTT	720
CAAGAAAAAT TCTTGAATGG TTTGATTTTC AGGCTCACGA ATAGCACGGT GTTTGTTTGA	780
GATGAGGATT TCATAGTGAA GCGGAGCTTG GGTAAAAATA ACATCTGTAT TCCCTGCAGA	840
ATAAACCTCA ACAAGGGTTG CATCGGTACT TTCTAGCTGA CTTTTTACAA GTTGCGAGTG	900
TGAGTTTGTG GTATTGATAA GCTTCATAAT ATTTCTCTCCG ATTTTCTAAT TCTATTATAG	960
CACTTTTTGA ATAAAGTCGC TTGATTTATA CTCAATGAAA ATCAAAGAGC AAATAGGAA	1020
GCTAGCCGCA GGCTATACTT GAGTACGGTA AGGCGACGCT GACGTGGTTT GAATTTTATT	1080
TTCGAAGAGT ATTAGCCAAT CTTATGCTGT TTTTCCAAG ATTCAATGGC CCATTTATGG	1140

1374

CTACCACGTT TAAGCTTTT GATAGCCTCG TCAATAGGGA ACCAGGCAAT ATGATTAAAG	1200
TTTTCTAGTG GCTTTTGAC TTCTTTGAAA GGAGTTGCTT CATAGAGGTA GGCAGGATTG	1260
TAGTAGTAGG TATCACGATG ACGAGAATAG AAATATTCGT CAGCTTGTCG GTAATAGGTA	1320
CCAATTTCTG CTGTGAAACC AAGCTCTTCA ATCAACTCAT GCTTTAGGGC TTCCTGATGA	1380
TTTTCACCTG CTTCAATTTC TCCACATGGT AGGAACCAAG CACCATTGGG TTCTTGAACA	1440
AGAACAATTT GTTTTGTTC AGGATTAGGG ATAAGTGCAT ATACGCCATA GCGAGCAATA	1500
TAGTCTGTAT TCACTTTTTT TCTCCGAAAG TTGGGTTTGC CATTGCATTT TCCTCATTAT	1560
CTAGTATCGT TATTATTATA GTGAAATGAA CCAAAAATAG TACACAATGT GGTATAATCT	1620
TCTTATGGCA TATTCAATAG ATTTTCGTAA AAAAGTTCTC TCTTATTGTG AGCGAACAGG	1680
TAGTATAACA GAAGCATCAC ACGTTTCCA AATCTCACGT AATACCATTT ATGGCTGGTT	1740
AAAGCTAAAA GAGAAAACAG GAGAGCTAAA CCACCAAGTA AAAGGAATAA AACCAAGAAA	1800
GGTTGATAGA GATAGACTTA AAAACTATCT TACTGACAAT CCAGACGCTT ATTTGACTGA	1860
AATAGCTTCT GAATTTGGCT GTCATCCAAC TACCATCCAC TATGCGCTCA AAGCTATGGG	1920
TACACTCGAA AAAAAAAGA ACTACACCTA CTATGAAC	1958

(2) INFORMATION FOR SEQ ID NO: 361:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 851 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 361:

TATGAAATTA AGTTATGATG ATAAAGTTCA GATCTATGAA CTTAGAAAAC AAGGATATAG	60
CTTAGAGAAG CTTTCAAATA AATTGGGAT AmACAATTCT AATCTTAGGT ATATGATTAA	120
ATTGATTGAT CGTTACGGAA TAGAGTTCGT CAAAAAAGGA AAAAATCGTT ACTATTCTCC	180
TGATTTAAAA CAAGAAATGA TTAATAAAGT CTGACATGAA GGCTGGACTA AAGATAGAGT	240
TTCTCTTGAA TACGGTCTCC CAAGTCGTAC GATACTTCTT AACTGGCTAG CACAATACAG	300
GAAAAACGGG TATACTATTG TTGAGAAACC AAGAGGGAGA GTACCTGAGA GCGGAGAATG	360
CCATCCTAAA AAAGTTAAGA GAACTCCGAT TGAAGGAGGA AAAAGAGAAA GAAGAAAGAC	420
AGAAATTGTT TAAGAATTAA TGACTGAGTT TTCGTTAGAT CTTCTTTTAA AAGTCATTAA	480
ACTAGCTCGT TCGACCTACT ACTATCACTT GAAACAGCTA GATAAACCAAG ATAAGGACCA	540
AGAGCTTAAA GCTGAAATTC AATCCATTTT TATCGAACAC AAAGGAAATT ATGCTTATCG	600

1375

TCGGATTTAT TTAGAACTAA GAAATCGTGG TTATCTGGTA AATCATAAAA GAGTTCAAGG	660
CTTGATGAAA GTACTCAATt TACAAGCTAA AACGCGACAG AAACGAAAAT ATTCTTCTCA	720
TAAAGGAGAC GTTGGAAGA AGGCAGAGAA TCTCATTCAA GGCCAATTG AAGGCTCTAA	780
AACAATGGAA CAGTGCTACA CAGATGTGAC AGAATTTGCC ATTCCAGTAA GTACTTAAAA	840
GCTTTACTTA T	851

(2) INFORMATION FOR SEQ ID NO: 362:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1168 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 362:

GGGTAGAATC GATATCTCCA ATGAGTTGGT tTAGCTGGTG AACTGTAAA AAGATTTCGw	60
CCAATTCAAG GTTGAGGCAT CGCAAATAT GGAAGTTTC CTCGTCAGTT CTGGAAAGAA	120
AACGGGATAA GGTGGCTGT GAAGCAAGCT GCCCTCCTTC CAACAATTTT GGAAAGTAGG	180
CATCAGCTGA CAATTCCTTA CAAGCATAGT CCGTTCATA ACCTGTTAAC AGTTGAAAGA	240
GGAAGTGGAC AAGGATATCT GAATCCGAAT AACGACAGTA GCGGCGTTGG TCATTCGTTA	300
CTAAATACTT AGAAATCCGC TCTTTTAGTT TCAACTGGGA AAAAAGTTCC TGAAAAAGA	360
TAAGACCACC ATACTGGGT AAATGACCTC CATCGAAAGA TAGTTGGTAA AAAGACTTGT	420
TTTGGAAGTG ATGATTGGT AACTGTTCA TGTGAGTTTC CTTCTTTTT GTGTTTTTT	480
CTACACTTAT ACCATAAAGG GGAACTCTT TTTGTCTAG TAAAAACAC CCATTGGGTG	540
AAAAAGAAA CCATCCAGGA TCTAAGCTAA GGCAAGGATT CTGGATGGTT TTTAGATTG	600
GGTGAATAA TTGGGGTTTT AGCTGCTTGC GGCAATCAG GTTCAGATAC AAAAATTAC	660
TCATCAACCT TTAGTGAAA TCCAATACA TTAACTATC TATTAGACTA TTACGCTGAT	720
AATATAGTCA ATTGAAACAA GAACAAGACA AAAGAGCCTC ATAAAAGGTA TTGCAACTTG	780
GTAATACCTT TTTGAGGTGC TTTTGATAT GAGCCCATGT TTTCTCAATA GGATTGTA	840
CAGGTGAGTA GGGAGGAAGA GGTAAAAGTT TATACCCAAA CTCTTCACAC AAGAGTTCTA	900
ACTTACCCAT TCTATGGAAT CTTCATTAT CCATAATAAT AACCGATGGT GTGTTAATG	960
TTGGTAAGAG AAATTCTGA AACCAAGCTT CAAAAAGTC GTCGTCATC GTCTCTTCGT	1020
AAGTTATTGG AGCGATTAAC TCACCATTTG TTAGACCTGC AACCAAAGAA ATCCTCTGAT	1080

1376
ATCTTCTTCC AGATACTTTG CCTCTTCTTA ACTGACCTTT TAATGAGCGA CCATATTCTC 1140
GATAAAAATA AGTATCGAAT CCTGTTTC 1168

(2) INFORMATION FOR SEQ ID NO: 363:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4483 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 363:

GTCAGCTTCA GCAAGCCCAT CAGCTTCTGA ATCTGCATCA ACCAGTGCCT CCGCTTCAGC 60
GTCAACCACT GCGTCGGCTT CAGCGTCGAC AAGTGCTTCG GCTTCAGCAT CAACGAGTGC 120
GTCGGCCTCA GCAAGCGCAA GTACCTCAGC GTCAGCTTCC GCCTCAACCA GTGCGTCGGC 180
TTCAGCAAGC ACAAGTGCCT CAGCCTCAGC AAGTATCTCA GCGTCTGAAT CGGCATCAAC 240
GAGTGCCTCT GAGTCAGCAT CAACGAGTAC GTCAGCCTCA GCAAGCACAT CAGCTTCTGA 300
ATCTGCATCA ACCAGTGCCT CAGCCTCAGC ATCGACAAGC GCCTCAGCTT CAGCAAGTAC 360
CAGTGCTTCA GCCTCAGCTT CGACAAGTGC GTCGGCCTCA ACCAGTGCAT CTGAATCGGC 420
ATCAACCACT GCGTCAGCCT CAGCAAGTAC TAGTGCATCA GCTTCAGCAT CAACGAGTGC 480
ATCGGCTTCA GCATCAACCA GTGCCTCGGC TTCAGCGTCA ACCAGTGCCT CAGCTTCAGC 540
AAGTACCACT GCTTCAGTCT CAGCATCAAC AAGTGCTTCA GCCTCAGCAT CGACAAGTGC 600
CTCGGCTTCA GCAAGCACAT CAGCATCTGA ATCAGCGTCG ACAAGCGCCT CAGCTTCAGC 660
AAGTACCACT GCGTCAGCCT CAGCGTCGAC AAGTGCGTCA GCCTCAGCAA GTACTAGTGC 720
ATCAGCTTCA GCATCAACGA GTGCATCGGC TTCGGCGTCA ACCAGTGCAT CAGAGTCAGC 780
AAGTACCACT GCGTCAGCTT CCGCATCAAC AAGTGCCCTG GCTTCAGCAA GCACCACTGC 840
GTCGGCTTCA GCAAGTACTA GCGCCTCAGC CTCAGCCTCA ACCAGTGCCT CAGCCTCAGC 900
AAGTATCTCA GCGTCTGAAT CGGCATCAAC GAGTGCCTCC GCTTCAGCAA GTACTAGCGC 960
CTCAGCCTCA GCGTCAACAA GTGCATCGGC TTCAGCGTCA ACGAGTGCCT CTGAATCGGC 1020
ATCAACCACT GCGTCCGCTT CAGCAAGTAC TAGCGCCTCA GCCTCAGCTT CAACAAGTGC 1080
ATCGGCTTCA GCATCAACGA GTGCGTCCGC TTCAGCAAGT ACTAGCGCCT CAGCCTCAGC 1140
GTCAACAAGT GCATCGGCTT CAGCGTCAAC GAGTGCGTCT GAGTCAGCAT CAACGAGTGC 1200
GTCAGCCTCA GCAAGCACAT CAGCTTCTGA ATCTGCATCA ACCAGTGCCT CAGCCTCAGC 1260
ATCGACAAGC GCCTCAGCTT CAGCAAGTAC CAGTGCGTCA GCTCAGCGTC GACAAGTGCs 1320

1377

TCrGCTTCAG CAAGTACCAG TGCCTCAGCC TCAGCAAGTA CCAGTGCKTC AGCCTCAGCG	1380
TCGACAAGTG CGTCGGCCTC AACCAAGTGCA TCTGAATCGG CATCAACCAG TCGTCAGCC	1440
TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT	1500
AGTGTCATCAG CTTTCAGCAAG TACTAGCGCC TCAGCCTCAG CGTCGACAAG CGCCTCAGCT	1560
TCAGCAAGTA CCAGTGCGTC AGCCTCAGCG TCGACAAGTG CGTCGGCTTC AGCAAGTACC	1620
TCAGCGTCTG AATCAGCATC AACCAAGTGCG TCGGCTTCAG CATCAACGAG TGCATCAGCT	1680
TCAGCATCAA CAAGTGCTTC AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG	1740
AGTGCTTCAG TCTCAGCGTC AACCAAGTGCC TCTGAATCGG CATCAACAAG TGCCTCGGCT	1800
TCAGCAAGCA CCAGTGCTTC GGCTTCAGCG TCAACGAGTG CGTCTGAGTC AGCATCAACG	1860
AGTGCGTCAC CTCAGCAAGC ACATCAGCTT CTGAATCTGC ATCAACCAAGT GCGTCACTTC	1920
CGCATCAACA AGCGCCTCGG CCTCAGCAAG TACAAGTGCT TCAGCCTCAG CATCAACCAG	1980
TGCATCAGCT TCAGCCTCAA CAAGTGCTTC AGCCTCAGCG TCAACCAAGTG CCTCGGCTTC	2040
AGCAAGTACC AGTGCGTCAG CTTCAGCAAG CACAAGTGCG TCAGCTTCAG CATCAACCAG	2100
TGCTTCGGCT TCGGCATCAA CAAGTGCTTC AGCATCAGCA TCAACGAGTG CGTCAsCTCA	2160
GCAAGTACTA GTGCATCAGC ATCAGCATCA ACCAGTGCAT CAGCCTCAGC AAGTATCTCA	2220
GCGTCTGAAT CGGCATCAAC GAGTGATCA GCATCAGCAT CAACGAGTGC ATCGGCTTCA	2280
GCGTCAACCA GTGCATCAGT CTCAGCAAGC ACCAGTGCGT CGGCTTCAGC ATCAACCAAGT	2340
GCCTCAGCCT CAGCAAGTAT CTCAGCGTCT GAATCGGCAT CAACGAGTGC GTCAGcCTCA	2400
GCAAGTACTA GTGCATCAGC ATCAGCATCA ACGAGTGCAT CGGCTTCAGC AAGTACCAGC	2460
GCCTCAGCTT CAGCAAGCAC CAGTGCGTCA GCCTCAGCAA GTACCAGCGC CTCAGCCTCA	2520
GCAAGCACCA GTGCCTCAGC TTCAGCAAGT ACCAGTGCGT CAGCCTCAGC GTCGACAAGT	2580
GCGTCGGCTT CAGCAAGTAC CTCAGCGTCT GAATCAGCAT CAACGAGTGC ATCAGCTTCA	2640
GCATCAACAA GTGCTTCAGC TTCAGCAAGT ACCAGTGCGT CGGCTTCAGC ATCAACGAGT	2700
GCTTCAGTCT CAGCGTCAAC CAGTGCCTCT GAATCAGCAT CAACAAGTGC CTCGGCTTCA	2760
GCAAGCACCA GTGCGTCGGC TTCAGCAAGT ACTAGTGCAT CGGCTTCAGC ATCGACAAGT	2820
GCGTCTGAAT CGGCATCAAC GAGTGCTTCG GCTTCAGCAT CAACGAGTGC GTCAGCCTCA	2880
GCAAGCACAT CAGCTTCTGA ATCTGCATCA ACCAGTGCGT CCGCTTCAGC GTCACCAAGT	2940
GCGTCGGCTT CAGCGTCGAC AAGTGCTTCG GCTTCAGCAT CAACGAGTGC GTCGGCCTCA	3000
GCAAGCGCAA GTACCTCAGC GTCAGCTTCC GCCTCAACCA GTGCGTCCGC TTCAGCAAGC	3060

1378

ACAAGTGCCT CAGCCTCAGC AAGTATCTCA GCGTCTGAAT CGGCATCAAC GAGTGCCTCG	3120
GCCTCAGCAA GCGCAAGTAC CTCAGCGTCA GCTTCCGCCT CAACCAGTGC GTCGGCTTCA	3180
GCAAGCACAA GTGCGTCAGC CTCAGCAAGT ATCTCAGCGT CTGAATCGGC ATCAACGAGT	3240
GCGTCTGAGT CAGCATCAAC GAGTACGTCA GCCTCAGCAA GCACATCAGC TTCTGAATCG	3300
GCATCAACCA GTGCGTCAGC CTCAGCATCG ACAAGCGCCT CAGCTTCAGC AAGTACCAGT	3360
GCTTCAGCCT CAGCGTCGAC AAGTGCCTCG GCCTCAACCA GTGCATCTGA ATCGGCATCA	3420
ACCAGTGCCT CAGCCTCAGC AAGTACTAGT GCATCAGCTT CAGCATCAAC GAGTGCATCG	3480
GCTTCAGCAT CAACCAGTGC CTCGGCTTCA GCGTCAACCA GTGCGTCAGC TTCAGCAAGT	3540
ACCAGTGCTT CAGTCTCAGC ATCAACAAGT GCTTCAGCCT CAGCATCGAC AAGTGCCTCG	3600
GCTTCAGCAA GCACATCAGC ATCTGAATCA GCGTCGACAA GCGCCTCAGC TTCAGCAAGT	3660
ACCAGTGCCT CAGCCTCAGC GTCGACAAGT GCGTCAGCCT CAGCAAGTAC TAGTGCATCA	3720
GCTTCAGCAT CAACGAGTGC ATCGGCTTCG GCGTCAACCA GTGCATCAGA GTCAGCAAGT	3780
ACCAGTGCCT CAGCTTCGCG ATCAACAAGT GCCTCGGCTT CAGCAAGCAC CAGTGCCTCG	3840
GCTTCAGCAA GTACTAGCGC CTCAGCCTCA GCCTCAACCA GTGCGTCAGC CTCAGCAAGT	3900
ATCTCAGCGT CTGAATCGGC ATCAACGAGT GCGTCCGCTT CAGCAAGTAC TAGCGCCTCA	3960
GCCTCAGCGT CAACAAGTGC ATCGGCTTCA GCGTCAACGA GTGCGTCTGA ATCGGCATCA	4020
ACGAGTGCCT CCGCTTCAGC AAGTACTAGC GCCTCAGCCT CAGCGTCAAC AAGTGCATCG	4080
GCTTCAGCAT CAACGAGTGC GTCCGCTTCA GCAAGTACTA GCGCCTCAGC CTCAGCGTCA	4140
ACAAGTGCAT CCGGTTTCAGC GTCAACGAGT GCGTCTGAGT CAGCATCAAC GAGTGCCTCA	4200
CCTCAKCAAG CACATCAGCT TCTGAATCTG CATCAACCAG TCGGTCACTT CCGCATCAAC	4260
AAGCGCCTCG GCCTCAGCAA GTACAAGTGC TTCAGCCTCA GCATCAACCA GTGCATCAGC	4320
TTCAGCCTCA ACAAGTGCTT CAGCCTCAGC GTCAGACCAG TGCCTCGGCT TCAGCAAGTA	4380
CCAGTGCCTC ACTTCAGCAA GCACAAGTGC GTCAGCTTCA GCATCAACCA GTGCTTCGCG	4440
TTCGGCATCA ACAAGTGCCT CAGCATCAGC ATCAACGAGT GCG	4483

(2) INFORMATION FOR SEQ ID NO: 364:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2550 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 364:

1379

GTACCTCAGC	GTCCCTCCGC	CTCAACCAGT	GCGTCCGCTT	CAGCAAGCAC	AAGTGCGTCA	60
CCTCAGCAAG	TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	120
CAAGTACCTC	AGCGTCACTT	CGCCTCAAC	CAGTGCGTCG	GCTTCAGCAA	GCACAAGTGC	180
GTCACTCAG	CAAGTATCTC	AGCGTCTGAA	TCGGCATCAA	CGAGTGCGTC	TGAGTCAGCA	240
TCAACGAGTA	CGTCAGCCTC	AGCAAGCACA	TCAGCTTCTG	AATCGGCATC	AACCAGTGCG	300
TCAGCCTCAG	CATCGACAAG	CGCCTCAGCT	TCAGCAAGTA	CCAGTGCTTC	AGCCTCAGCG	360
TCGACAAGTG	CGTCGGCCTC	AACCAGTGCA	TCTGAATCGG	CATCAACCAG	TGCGTCAGCC	420
TCAGCAAGTA	CTAGTGATC	AGCTTCAGCA	TCAACGAGTG	CATCGGCTTC	AGCATCAACC	480
AGTGCCCTCGG	CTTCAGCGTC	AACCAGTGCG	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGTC	540
TCAGCATCAA	CAAGTGCTTC	AGCCTCAGCA	TCGACAAGTG	CCTCGGCTTC	AGCAAGCACA	600
TCAGCATCTG	AATCAGCGTC	GACAAGTGCG	TCGGCCTCAA	CCAGTGATC	TGAATCGGCA	660
TCAACCAGTG	CGTCAGCCTC	AGCAAGTACT	AGTGATCAG	CTTCAGCATC	AACGAGTGCA	720
TCGGCTTCGG	CGTCAACCAG	TGCATCAGAG	TCAGCAAGTA	CCAGTGCGTC	AGCTTCCGCA	780
TCAACAAGTG	CCTCGGCTTC	AGCAAGCACA	TCAGCATCTG	AATCAGCGTC	AACCAGTGCT	840
TCGGCTTCAG	CAAGTACCAG	TGCTTCAGCT	TCAGCATCAA	CCAGCGCCTC	GGCCTCAGCA	900
AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCGG	CCTCAGCAAG	CACCTCAGCT	960
TCTGAATCGG	CCTCAACCAG	CGCCTCAGCC	TCAGCATCAA	CGAGTGCTTC	GGCTTCAGCA	1020
AGCAACAAGCG	CCTCGGGTTC	AGCATCAACG	AGTACGTCAG	CTTCAGCGTC	AACCAGTGCT	1080
TCAGCCTCAG	CATCAACAAG	TGCGTCAGCC	TCAGCAAGTA	TCTCAGCGTC	TGAATCGGCA	1140
TCAACGAGTG	CGTCTGAGTC	AGCATCAACG	AGTACGTCAG	CCTCAGCAAG	CACAAGTGCT	1200
TCAGCCTCAG	CAAGTATCTC	AGCGTCTGAA	TCGGCATCAA	CGAGTGCGTC	CGCTTCAGCA	1260
AGTACTAGCG	CCTCAGCATC	AGCGTCAACA	AGTGCTTCGG	CTTCAGCGTC	AACGAGTGCG	1320
TCTGAGTCAG	CATCAACGAG	TACGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	1380
TCAACCAGTG	CGTCAGCCTC	AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	1440
TCAGCCTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCGTC	GGCCTCAACC	1500
AGTGATCTG	AATCGGCATC	AACCAGTGCG	TCAGCTCAGC	AAGTACTAGT	GCATCAGCTT	1560
CAGCATCAAC	GAGTGATCG	GCTTCGGCGT	CAACCAGTGC	ATCAGAGTCA	GCAAGTACCA	1620
GTGCGTCACT	TCCGCATCAA	CAAGTGCCTC	GGCTTCAGCA	AGCACATCAG	CATCTGAATC	1680
AGCGTCAACC	AGTGCTTCGG	CTTCAGCAAG	TACCAGTGCT	TCAGCTTCAG	CATCAACCAG	1740

1380 /

CGCCTCGGCC TCAGCAAGCA CCTCAGCTTC TGAATCGGCC TCAACCAGCG CCTCGGCCTC	1800
AGCAAGCACC TCAGCTTCTG AATCGGCCTC AACCAGCGCC TCAGCCTCAG CATCAACGAG	1860
TGCTTCGGCT TCAGCAAGCA CAAGCGCCTC GGGTTCAGCA TCAACGAGTA CGTCAGCTTC	1920
AGCGTCAACC AGTGCTTCAG CCTCAGCATC AACAAAGTGGC TCAGCCTCAG CAAGTATCTC	1980
AGCGTCTGAA TCGGCATCAA CGAGTGGCTC TGAGTCAGCA TCAACGAGTA CGTCAGCCTC	2040
AGCAAGCACC TCAGCTTCTG AATCGGCCTC AACCAGTGGC TCAGCCTCAG CATCGACAAG	2100
CGCCTCAGCT TCAGCAAGTA CCAGTGCTTC AGCCTCAGCG TCGACAAGTG CGTCGGCCTC	2160
AACCAGTGCA TCTGAATCGG CATCAACCAG TGGCTCAGCC TCAGCAAGTA CTAGTGCATC	2220
GGCTTCAGCA TCAACCAGTG CCTCGGCTTC AGCGTCAACC AGTGCGTCAG CTTAGCAAG	2280
TACCACTGCT TCAGTCTCAG CATCAACAAG TGCTTCAGCC TCAGCATCGA CAAGTGCCTC	2340
GGCTTCAGCA AGCACATCAG CATCTGAATC AGCGTCGACA AGCGCCTCAG CTTAGCAAG	2400
TACCACTGCG TCAGCCTCAG CGTCGACAAG TGGCTCAGCT ACAGCAAGTA CTAGTGCATC	2460
AGCTTCAGCA TCAACGAGTG CATCGGCTTC GCGTCAACC AGTGTCATCAG AGTCAGCAAG	2520
TACCACTGCG TCAGTTCAG CATCAACAAG	2550

(2) INFORMATION FOR SEQ ID NO: 365:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 365:

ACCCAGCAAG TACTAGTGCA TCGGCTTCAG CAAGCACCAG TGGCTCGGCT TCAGCATCAA	60
CCAGTGCCTC AGCCTCAGCA AGTATCTCAG CGTCTGAATC GGCATCAACG AGTGCGTCAC	120
CTCAGCAAGT ACTAGTGCAT CAGCATCAGC ATCAACGAGT GCATCGGCTT CAGCAAGTAC	180
CAGCGCCTCA GCTTCAGCAA GCACCAGTGC GTCAsCTCAG CAAGTACCAG CGCCTCAGCC	240
TCAGCAAGCA CCAGTGCCTC AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA	300
AGTGCGTCGG CTTAGCAAG TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT	360
TCAGCATCAA CAAGTGCTTC AGCTTCAGCA AGTATCTCAG CGTCTGAATC GGCATCAACG	420
AGTGCGTCCG CTTAGCAAG TACTAGCGCC TCAGCATCAG CGTCAACAAG TGCTTCGGCT	480
TCAGCGTCAA CGAGTGGCTC TGAGTCAGCA TCAACGAGTA CGTCAGCCTC AGCAAGCACA	540
TCAGCTTCTG AATCTGCATC AACCAGTGGC TCAGCCTCAG CATCGACAAG CGCCTCAGCT	600

1381

TCAGCAAGTA CCAGTGGCTC AGCCTCAGCA AGTACCAGTG CTTCAGCCTC AGCGTCGACA	660
AGTGGCTCGG CCTCAACCAG TGCATCTGAA TCGGCATCAA CCAGTGGCTC AGCCTCAGCA	720
AGTACTAGCG CCTCAGCCTC AGCATCAACG AGTGGCTCCG CTTCAGCAAG TACTAGTGCA	780
TCAGCTTCAG CAAGTACTAG CGCCTCAGCC TCAGCGTCGA CAAGCGCCTC AGCTTCAGCA	840
AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGGCTCGG CTTCAGCAAG TAGCTCAGCG	900
TCTGAATCAG CATCAACAAG TGGCTCGGCT TCAGCATCAA CGAGTGCATC AGCTTCAGCA	960
TCAACAAGTG CTTCAGCTTC AGCAAGTACC AGTGGCTCGG CTTCAGCATC AACGAGTGCT	1020
TCAGTCTCAG CGTCAACCAG TGCCTCTGAA TCCGCATCAA CAAGTGCCTC GGCTTCAGCA	1080
AGCACCAGTG CTTCGGCTTC AGCGTCAACG AGTGGCTCTG AGTCAGCATC AACGAGTGCG	1140
TCAGCCTCAG CAAGCACATC AGCTTCTGAA TCTGCATCAA CCAGTGGCTC AGCTTCCGCA	1200
TCAACAAGCG CCTCGGCCTC AGCAAGTACA AGTGCTTCAG CCTCAGCATC AACCAGTGCA	1260
TCAGCTTCAG CCTCAACAAG TGCTTCAGCC TCAGCGTCAA CCAGTGCCTC GGCTTCAGCA	1320
AGTACCAGTG CGTCAGCTTC AGCAAGCACA AGTGGCTCAG CTTCAGCATC AACCAGTGCT	1380
TCGGCTTCGG CATCAACAAG TGCCTCAGCA TCAGCATCAA CGAGTGGCTC AGCCGG	1436

(2) INFORMATION FOR SEQ ID NO: 366:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 735 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 366:

GCAGTTGCCA CACCGTGCTG ACCAGCACCC GTTCCTGCGA TAATTTCTT TTTACCCATG	60
CGTWTGGCAA GCCAAACTTG TCCTAAGGCA TTGTTAATCT TGTGGGCTCC TGTATGGTTA	120
AGGTCTTCCC GTTTGAGATA AATCTTGCTC CGCCAATATG CTGGGTCAAG TTTTTCGCT	180
AATAAAGAGG AGTTTCACGT CCTACGTACT GGCGCAAAAG CTGGTTTAAT TCCTCTTGGA	240
AACTTGGGTC TGCCTGACTT TCACGGTAGG CCTTCTCCAA CTCCAAACT GCTGTCACTA	300
ATGTTTCTGG GACAAAACGT CCGCCGAATT TTCCGTAAAA TCCATCTTTA TTGGTTCCCT	360
GATATGCCAT GCTTTACCTT CTCTATAAAT CTTCTAATCT TTTCATGATC TTTTGTCCA	420
TCTGTCTCCA CTCCGCTCGA TACATCTACT GCATAGGGAG TAAAGTGTG AATTGCTTTT	480
ACTACATTAT CTTCAATTAAG GCCACCTGCG ATAAAGAAGG GCTGTGCTAG TCCAGTCGTA	540

1382

TCCAGTTGAC	CCCAATCAAA	GGGCTGGCCA	CTTCCTGCCA	CAGGGGCATC	AAAGAGTAGA	600
TAATCTGCCT	GAGAATTGGG	GACATGCCCA	TTTCCATCTA	CCTGCACAGC	CTGAATACTG	660
GCACAAGGCA	AATTCTCAAA	TAAATCATCT	GCCACCTGAC	CGTGAACCTG	AACCAAGTCC	720
AAGCCGGGGA	TCCTC					735

(2) INFORMATION FOR SEQ ID NO: 367:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1702 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 367:

TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG	TGCATCGGCT	TCAGCATCAA	CGAGTGCCTC	60
CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	AGCGTCAACA	AGTGCATCGG	CTTCAGCGTC	120
AACGAGTGGC	TCTGAGTCAG	CATCAACGAG	TGCGTCAGCC	TCAGCAAGCA	CATCAGCTTC	180
TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	240
TACCACTGCG	TCAGCCTCAG	CGTCGACAAG	TGCGTCGGCT	TCAGCAAGTA	CCAGTGCCTC	300
AGCCTCAGCA	AGTACCAGTG	CGTCAGCCTC	AGCGTCGACA	AGTGCCTCGG	CCTCAACCAG	360
TGCATCTGAA	TCGGCATCAA	CCAGTGCCTC	AGCCTCAGCA	AGTACTAGTG	CATCAGCTTC	420
AGCATCAACG	AGTGCATCGG	CTTCAGCATC	AACCAAGTGA	TCAGAGTCAG	CAAGTACCAG	480
TGCGTCAGCT	TCCGCATCAA	CAAGTGCCTC	GGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	540
AGCGTCAACA	AGTGCTTCAG	CTTCCGCGTC	AACCAGCGCC	TCGGCCTCAG	CAAGTATCTC	600
AGCGTCTGAA	TCGGCATCAA	CAAGTGCCTC	GGCTTCAGCA	TCAACGAGTG	CATCAGTCTC	660
AGCAAGCACC	AGTGCCTCGG	CCTCAGCAAG	CACCAGCGCG	TCTGAATCCG	CATCAACCAG	720
TGCCTCAGCT	TCAGCAAGTA	CCTCAGCATC	TGAATCAGCA	TCAACAAGTG	CATCGGCTTC	780
AGCAAGCACA	AGTGCTTCAG	CCTCAGCAAG	TATCTCAGCG	TCTGAATCGG	CATCAACGAG	840
TGCGTCCGCT	TCAGCAAGTA	CTAGCGCCTC	AGCATCAGCG	TCAACAAGTG	CTTCGGCTTC	900
AGCGTCAACG	AGTGCCTCTG	AGTCAGCATC	AACGAGTACG	TCAGCCTCAG	CAAGCACATC	960
AGCTTCTGAA	TCTGCATCAA	CCAGTGCCTC	AGCCTCAGCA	TCGACAAGCG	CCTCAGCTTC	1020
AGCAAGTACC	AGTGCCTCAG	CCTCAGCAAG	TACCACTGCT	TCAGCCTCAG	CGTCGACAAG	1080
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCCTCAG	CCTCAGCAAG	1140
TACTAGCGCC	TCAGCCTCAG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGTGCATC	1200

1383

AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTCAGCAAG	1260
CACCAAGTGGC TCAGCCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCCTC	1320
AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGGGTCGG CTTCAGCAAG	1380
TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAAGTGCC TCTGAATCAG CATCAACAAG TGCCTCGGCT TCAGCAAGCA CCAGTGCCTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGGGCTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGCCTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAAGTG CG	1702

(2) INFORMATION FOR SEQ ID NO: 368:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 941 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 368:

ACCAGTGCA CAGCTTCAGC CTCAACAAGT GCTTCAGCCT CAGCGTCAAC CAGTGCCTCG	60
GCTTCAGCAA GTACCAGTGC GTCACCTCAG CAAGCACAAG TGCCTCACTT CAGCATCAAC	120
CAGTGCTTCG GCTTCGGCAT CAACAAGTGC CTCAGCATCA GCATCAACGA GTGCGTCACC	180
TCAGCAAGTA CTAGTGATC AGCATCAGCA TCAACCAAGTG CATCAGCCTC AGCAAGTATC	240
TCAGCGTCTG AATCGGCATC AACGAGTGCA TCAGCATCAG CATCAACGAG TGCATCGGCT	300
TCAGCGTCAA CCAGTGATC AGTCTCAGCA AGCACCAGTG CGTCGGCTTC AGCATCAACG	360
AGTGCTTCAG CCTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG TGCCTCAGCC	420
TCAGCAAGTA CTAGTGATC GGCTTCAGCA AGCACCAGTG CGTCGGCTTC AGCATCAACC	480
AGTGCTTCAG CCTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG TGCCTCAGCC	540
TCAGCAAGTA CTAGTGATC AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC	600
AGCGCTCAG CTTCAGCAAG CACCAAGTGC TCAGCCTCAG CAAGTACCAG CGCCTCAGCC	660
TCAGCAAGCA CCAGTGCTC AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA	720
AGTGGGTCGG CTTCAGCAAG TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT	780
TCAGCATCAA CAAGTGCTTC AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG	840

1384

AGTGCTTCAG TCTCAGCGTC AACCAAGTCC TCTGAATCAG CATCAACAAG TGCCTCGGCT 900

TCAGCAAGCA CCAGTGCCTC GGCTTCAGCA AGTACTAGTG C 941

(2) INFORMATION FOR SEQ ID NO: 369:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 869 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 369:

CAGCAAGTAC TAGTGCATCA GCTTCAGCAT CAACGAGTGC ATCGGCTTCT GCGTCAACCA 60

GTGCATCAGA GTCAGCAAGT ACCAGTGGCT CAGCTTCCGC ATCAACAAGT GCCTCGGCTT 120

CAGCAAGCAC CAGTGCCTCG GCTTCAGCAA GTACTAGCGC CTCAGCCTCA GCCTCAACCA 180

GTGCGTCAGC CTCAGCAAGT ATCTCAGCGT CTGAATCGGC ATCAACGAGT GCGTCCGCTT 240

CAGCAAGTAC TAGCGCCTCA GCCTCAGCGT CAACAAGTGC ATCGGCTTCA GCGTCAACGA 300

GTGCGTCTGA ATCGGCATCA ACGAGTGGCT CCGCTTCAGC AAGTACTAGC GCCTCAGCCT 360

CAGCGTCAAC AAGTGCATCG GCTTCAGCAT CAACGAGTGC GTCCGCTTCA GCAAGTACTA 420

GCGCCTCAGC CTCAGCGTCA ACAAGTGCAT CGGCTTCAGC GTCAACGAGT GCGTCTGAGT 480

CAGCATCAAC GAGTGCCTCA GCCTCAGCAA GCACATCAGC TTCTGAATCT GCATCAACCA 540

GTGCGTCAGC CTCAGCATCG ACAAGCGCCT CAGCTTCAGC AAGTACCACT GCGTCAGCCT 600

CAGCGTCGAC AAGTGCCTCG GCTTCAGCAA GTACCACTGC CTCAGCCTCA GCAAGTACCA 660

GTGCGTCAGC CTCAGCGTCA ACAAGTGCAT CGGCTTCAAC CAGTGCATCT GAATCGGCAT 720

CAACCAAGTGC GTCAGCCTCA GCAAGTACTA GTGCATCAGC TTCAGCATCA ACGAGTGCAT 780

CGGCTTCAGC ATCAACCACT GCATCAGAGT CAGCAAGTAC CAGTCCGTCA GmTTCCGCAT 840

GCAACAAGTG CCTCGGCTTC AGCAAGTAC 869

(2) INFORMATION FOR SEQ ID NO: 370:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 750 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 370:

TCAACAAGTG CCTCAGCATC AGCATCAACG AGTGGCTCAG CCTCAGCAAG TACTAGTGCA 60

1385

TCAGCATCAG CATCAACCAG TGCATCAGCC TCAGCAAGTA TCTCAGCGTC TGAATCGGCA	120
TCAACGAGTG CATCAGCATC AGCATCAACG AGTGCATCGG CTTCAGCGTC AACCAGTGCA	180
TCAGTCTCAG CAAGCACCAG TGGCTCGGCT TCAGCATCAA CGAGTGCCTC AGCCTCAGCA	240
AGTATCTCAG CGTCTGAATC GGCATCAACG AGTGCCTCAG CCTCAGCAAG TACTAGTGCA	300
TCGGCTTCAG CAAGCACCAG TGGCTCGGCT TCAGCATCAA CCAGTGCCTC AGCCTCAGCA	360
AGTATCTCAG CGTCTGAATC GGCATCAACG AGTGCCTCAG CCTCAGCAAG TACTAGTGCA	420
TCAGCATCAG CATCAACGAG TGCATCGGCT TCAGCAAGTA CCAGCGCCTC AGCTTCAGCA	480
AGCACCAGTG CGTCAGCCTC AGCAAGTACC AGCGCCTCAG CCTCAGCAAG CACCAGTGCC	540
TCAGCTTCAG CAAGTACCAG TGGCTCAGCC TCAGCGTCGA CAAGTGCCTC GGCTTCAGCA	600
AGTACCTCAG CGTCTGAATC AGCATCAACG AGTGCATCAG CTTCAGCATC AACAAGTGCT	660
TCAGCTTCAG CAAGTATCTC AGCGTCTGAA TCGGCATCAA CGAGTGCCTC CGCTTCAGCA	720
AGTACTAGCG CCTCAGCATC AGCGTCAACG	750

(2) INFORMATION FOR SEQ ID NO: 371:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 957 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 371:

CCGAAAACA GCTCTGGCGC TTGGTCTTGC CCAGCGTATT GCTAGTGGTG ACGTGCCTGC	60
GGAAATGGCT AAGATGCGCG TGTTAGAACT TGATTGATG AATGTCGTTG CAGGGACACG	120
CTTCCGTGGT GACTTTGAAG AACGCATGAA TAATATCATC AAGGATATTG AAGAAGATGG	180
CCAAGTCATC CTCTTTATCG ATGAACTCCA CACCATCATG GGTTCCTGGTA GCGGGATTGA	240
TTCGACTCTG GATGCGGCCA ATATCTTGAA ACCAGCCTTG GCGCGTGGAA CTTTGAGAAC	300
GGTTGGTGCC ACTACTCAGG AAGAATATCA AAAACATATC GAAAAAGATG CGGCACTTTC	360
TCGTCGTTTC GCTAAAGTGA CGATTGAAGA ACCAAGTGTG GCAGATAGTA TGACTATTTT	420
ACAAGGTTTG AAGGCGACTT ATGAGAAACA TCACCGTGTA CAAATCACAG ATGAAGCGGT	480
TGAAACAGCG GTTAAGATGG CTCATCGTTA TTAAACAGT CGTCACTTGC CAGACTCTGC	540
TATCGATCTC TTGGATGAGG CGGCAGCAAC AGTGCAAAAT AAGGCAAAGC ATGTAAAAGC	600
AGACGATTCA GATTTGAGTC CAGCTGACAA GGCCCTGATG GATGGCAAGT GGAAACAGGC	660

1386

AGCCCAGCTA ATCGCAAAAG AAGAGGAAGT ACCTGTCTAC AAAGACTTGG TGACAGAGTC	720
TGATATTTTG ACCACCTTGA GTCGCTTGTC AGGAATCCCA GTTCAAAAAC TGA CTCAAAC	780
GGATGCTAAG AAGTATTTAA ATCTTGAAGC AGAACTCCAT AAACGGGTTA TCGGTCAAGA	840
TCAAGCTGTT TCAAGCATTA GCCGTGCCAT TCGCCGCAAC CAGTCAGGGA TTCGCAGTCA	900
TAAGCGTCCG ATTGGTTCCT TTATGTTTCT AGGGCCTACA GGTGTCGGGG TATCCGA	957

(2) INFORMATION FOR SEQ ID NO: 372:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 807 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 372:

CAAAGCGCCT CAGCTTCAGC ATCAACAAGT GCGTCGGCTT CAGCATCAAC CAGTGCCTCG	60
GCTTCAGCGT CAACCAAGTGC GTCACATTCA GCAAGTACCA GTGCTTCAGT CTCAGCATCA	120
ACAAGTGCTT CAGCCTCAGC ATCGACAAGT GCCTCGGCTT CAGCAAGCAC ATCAGCATCT	180
GAATCAGCGT CAACCAAGTGC TTCGGCTTCA GCAAGTACCA GTGCTTCAGC TTCAGCATCA	240
ACCAGCGCCT CGGCCTCAGC AAGCACCTCA GCTTCTGAAT CGGCCTCAAC CAGCGCCTCG	300
GCCTCAGCAA GCACCTCAGC TTCTGAATCG GCCTCAACCA GCGCCTCAGC CTCAGCATCA	360
ACGAGTGCTT CGGCCTCAGC AAGCACAAGC GCCTCGGCTT CAGCATCAAC GAGTACGTCA	420
GCTTCAGCGT CAACCAAGTGC TTCAGCCTCA GCATCAACAA GTGCGTCAGC CTCAGCAAGT	480
ATCTCAGCGT CTGAATCGGC ATCAACGAGT GCGTCTGAGT CAGCATCAAC GAGTACGTCA	540
GCCTCAGCAA GCACCTCAGC TTCTGAATCG GCCTCAACCA GTGCGTCAGC CTCAGCATCG	600
ACAAGCGCCT CAGCTTCAGC AAGTACCAGT GCTTCAGCCT CAGCGTCGAC AAGTGCCTCG	660
GCCTCAACCA GTGCATCTGA ATCGGCATCA ACCAGTGCCT CAGCCTCAGC AAGTACTAGT	720
GCATCGGCTT CAGCATCAAC CAGTGCCTCG GCTTCAGCGT CAACCAAGTGC GTCAGCTTCA	780
GCAAGTACCA TGTGCTTCAT GTCTCAG	807

(2) INFORMATION FOR SEQ ID NO: 373:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1068 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1387

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 373:

CATCGGCTTC AGCATCAACG AGTGGCTCCG CTTAGCAAG TACTACCGCC TCAGCCTCAG	60
CGTCAACAAG TGCATCGGCT TCAGCGTCAA CGAGTGCCTC TGAGTCAGCA TCAACGAGTG	120
CGTCACCTCA GCAAGCACAT CAGCTTCTGA ATCTGCATCA ACCAGTGCCT CACCTCAGCA	180
TCGACAAGCG CCTCAGCTTC AGCAAGTACC AGTGGCTCAC CTCAGCGTCG ACAAGTGCCT	240
CGGCTTCAGC AAGTACCAGT GCGTCACTC AGCAAGTACC AGTGGCTCAC CTCAGCGTCG	300
ACAAGTGCCT GGGCTCAAC CAGTGCATCT GAATCGGCAT CAACCAAGTGC GTCACCTCAG	360
CAAGTACTAG TGCATCAGCT TCAGCATCAA CGAGTGCATC GGCTTCAGCA TCAACCAAGTG	420
CATCAGAGTC AGCAAGTACC AGTGGCTCAG CTTCGGCATC AACAAGTGCC TCGGCTTCAG	480
CAAGTACTAG CGCCTCAGCC TCAGCGTCAA CAAGTGCTTC AGCTTCGCG TCAACCAAGCG	540
CCTCGGCTTC AGCAAGTATC TCAGCGTCTG AATCGGCATC AACAAGTGCC TCGGCTTCAG	600
CATCAACGAG TGCATCAGTC TCAGCAAGCA CCAAGTGCCTC GGCCTCAGCA AGCACCAGCG	660
CGTCTGAATC CGCATCAACC AGTGCCTCAG CTTAGCAAG TACCTCAGCA TCTGAATCAG	720
CATCAACAAG TGCATCGGCT TCAGCAAGCA CAAGTGCTTC AGCCTCAGCA AGTATCTCAG	780
CGTCTGAATC GGCATCAACG AGTGGCTCCG CTTAGCAAG TACTAGCGCC TCAGCATCAG	840
CGTCAACAAG TGCTTCGGCT TCAGCGTCAA CGAGTGCCTC TGAGTCAGCA TCAACGAGTA	900
CGTCAGCCTC AGCAAGCACA TCAGCTTCTG AATCTGCATC AACCAGTGCCT TCAGCCTCAG	960
CATCGACAAG CGCCTCAGCT TCAGCAAGTA CCAAGTGCCTC AGCCTCAGCA AGTACCAGTG	1020
CTTCAGCCTC AGCGTCGACA AGTGGCTCCG GCTCAACCAG TGCATCTG	1068

(2) INFORMATION FOR SEQ ID NO: 374:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 620 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 374:

CAGCATCAAC GAGTGCCTCA GTTTCAGCGT CAACCAAGTGC CTCTGAATCA GCTTCAACAA	60
GTGCCTCGGC TTCAGCAAGC CCCAGTGCCT CGGCTTCAGC AAGTACTAGT GCATCGGCTT	120
CAGCATCGAC AAGTGCCTCT GAATCGGCAT CAACGAGTGC TTCGGCTTCA GCATCAACGA	180
GTGCGTCAGC CTCAGCAAGC ACATCAGCTT CTGAATCTGC ATCAACCAAGT GCGTCCGyTT	240

1388

CAGCGTCAAC CAGTGCCTCG GCTTCAGCGT CGACAAGTGC TTCGGCTTCA GCATCAACGA	300
GTGCGTCGGC CTCAGCAAGC GCAAGTACCT CAGCGTCAGC TTCGGCCTCA ACCAGTGCCT	360
CGGCTTCAGC AAGCACAACT GCGTCAGCCT CAGCAAGTAT CTCAGCGTCT GAATCGGCAT	420
CAACGAGTGC GTCTGAGTCA GCATCAACGA GTACGTCAGC CTCAGCAAGC ACATCAGCTT	480
CTGAATCTGC ATCAACCACT GCGTCAGCCT CAGCATCGAC AAGCGCCTCA GCTTCAGCAA	540
GTACCACTGC TTCAGCCTCA GCGTCGACAA GTGCGTCGGC CTCAACCACT GCATCTGAAT	600
CGGCATCAAC CAGTGCCTCA	620

(2) INFORMATION FOR SEQ ID NO: 375:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 720 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 375:

TATTGGGGC GCCCCAACCT CTATGTGACT ACGGATTATT TCCTAGATTA CATGgGGATA	60
AACCATTTAG AAGAATTACC AGTGATTGAT GAGCTTGAGA TTCAAGCCCA AGAAAGCCAA	120
TTATTTGGTG AAAGGATAGA AGAAGATGAG AATCAATAAG TATATTGCCC ACGCAGGTGT	180
GGCCAGTAGG AGAAAAGCAG AAGAGCTGAT TAAGCAAGGC TTGGTGACGG TTAACGGCCA	240
AGTGGTGGCT GAACTAGCAA CCACTATCAA GTCAGGCGAC AAGGTCGAAG TTGAAGGTCA	300
ACCTATCTAC AACGAAGAAA AGGTCTACTA TCTGCTTAAC AAACCACGCG GTGTGATTTT	360
CAGTGTGACA GATGATAAGG GTCGCAAGAC GGTGTGCGAC CTCTTGCCCA ATGTCAAAGA	420
GCGTATTTAC CCTGTGGGTC GTTGGGACTG GGATACATCA GGTGTCTTGA TTTTGACCAA	480
TGATGGGGAC TTACAGACG AGATGATTCA CCCTCGTAAT GAGATTGACA AGGTTTATGT	540
CGCGCGTGT AAAGGTGTGG CCAATAAGGA CAATCTCCGC CCCTTGACCC GTGGTCTTGA	600
GATTGATGGT AAGAAAACCA AGCCATAATA TATAGGTTTT GTAGCCTCTA CACCATAAAT	660
ATTGCTAAT AAAAATACTG TATTATTACC CTCTTAAGGT GCGAAATTAT TCAAGTTCTT	720

(2) INFORMATION FOR SEQ ID NO: 376:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 648 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

1389

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 376:

CGCCATTTC CATCGTACCG CCGAAAATCC CAGCGCCTCA GCCATCAAAT ATCCTATCAA	60
CGTTCTCAAA AAAAGTGACC GCTCTCTCAT CATGTTTCCA AGTGGTAGCC GCCACTCAAA	120
CGATGTCAAG GGGGGCGCAC ACTskATGTC CAAAATGGCC AAGGTCCGTA TCATGCCGGT	180
TACCTACACC GGTCCCATGA CTTTGAAGGG CTTGATTAGC CGTGAACGTG TCGATATGAA	240
CTTTGGAAAT CCAATCGATA TCTCAGATAT CAAGAAAATG AATGATGAAG GCATTGAAAC	300
AGTCGCCAAT CGTATTCAAA CAGAATTCCA ACGTCTGGAC GAAGAAACGA AACAAATGGCA	360
CAATGATAAA AAACCAAATC CACTCTGGTG GTTTATCCGC ATCCCTGCCC TCATCCTTGC	420
TATTATCCTC GCTATCCTAA CCATCATCTT TAGCTTTATC GCAAGCTTCA TCTGGAACCC	480
AGATAAGAAA AGAGAAGAAC TTGCATAGAA GAAATGAACC TTGGCCAAAC AGCTAAGGTT	540
TTTATTTATA TAGTAGATTG GWACTAGAAT AGTACACCTC TACTTCTAAA ACATTTTATG	600
AAATCGATTT GACTGTCCTG ATCGATTTGT CCTAATCTTA TTTCAATT	648

(2) INFORMATION FOR SEQ ID NO: 377:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 690 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 377:

GTGCATCGCT TTCAGCATCG ACAAGTGCCT CTGAATCGGC ATCAACGAGT GCTTCGGCTT	60
CAGCATCAAC GAGTGCCTCA GCTTCAGCAA GCACATCAGC TTCTGAATCT GCATCAACCA	120
GTGCGTCCGC TTCAGCGTCA ACCAGTGCCT CGGCTTCAGC GTCGACAAGT GCTTCGGCTT	180
CAGCATCAAC GAGTGCCTCG GCCTCAGCAA GCGCAAGTAC CTCAGCGTCA GCTTCGCCTT	240
CAACCAGTGC GTCCGCTTCA GCAAGCACAA GTGCGTCAGC CTCAGCAAGT ATCTCAGCGT	300
CTGAATCGGC ATCAACGAGT GCGTCGGCCT CAGCAAGCGC AAGTACCTCA GCGTCAGCTT	360
CCGCCTCAAC CAGTGCCTCG GCTTCAGCAA GCACAAGTGC GTCAGCCTCA GCAAGTATCT	420
CAGCGTCTGA ATCGGCATCA ACGAGTGCCT CTGAGTCAGC ATCAACGAGT ACGTCAGCCT	480
CAGCAAGCAC ATCAGCTTCT GAATCGGCAT CAACCAGTGC GTCAGCCTCA GCATCGACAA	540
GCGCCTCAGC TTCAGCAAGT ACCAGTGCCT CAGCCTCAGC GTCGACAAGT GCGTCGGCCT	600
CAACCAGTGC ATCTGAATCG GCATCAACCA GTGCGTCAGC CTCAGCAAGT ACTAGTCAT	660

CAGCTTCAGC ATCAACGAGT GCATCGGCTT 1390 690

(2) INFORMATION FOR SEQ ID NO: 378:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1003 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 378:

CGAGATTCTC TGGAGTTATG GATGTCGTTT CAATATGTGC ACGTTGGAAT GTTAGTGCTT 60
ATATGGGGGG AACAGAATCC TCTCTTGATT GAAGACAAGC TAGTCATTAG GCTGGTTTGT 120
CTTTTGTCA ACTGTAGTGG GTTGATATAA TAGTATTAGT GAGTGGGATA AAAGTTTCAT 180
TTAGTTTATT CAGTACAAAT TTAACGGGTC AAGATTTATA TACTAGTGGT GTTTTGGGG 240
CTGAGAGAAG TATCTTGATT TTATGTGTGG TTTTATACT TACAGTTGTT CTGCTCCAAA 300
GAGCTTGTAG AGAAGAATTA GCTCATAAAG GAGATTGATT ATTTTGATAT CAAAAAATG 360
CACAGGATAA CCTGATGCAT TTTTTCAGC ACAATGCTTG CTACTTCCTT CTGTCGAATT 420
TAGACAATTT TAAACCCCAA TTATTCACCC CAAATCTAAA AACCATCCAG AATCCTTGCC 480
TTAGCTTAGA TCCTGGATGG TTTCTTTTTT CACCCAATGG GTGTTTTTTA CTAGACAAAA 540
AAGAGTTTCC CCTTTATGGT ATAAGTGTAG AAAAAACAC AAAAAGAAAG GAAACTCACA 600
TGAACAGTTT ACCAAATCAT CACTTCCAAA ACAAGTCTTT TTACCAACTA TCTTTCGATG 660
GAGGTCATTT AACCAGTAT GGTGGTCTTA TCTTTTTC A GAACTTTTT TCCAGTTGA 720
AACTAAAAGA GCGGATTTCT AAGTATTTAG TAACGAATGA CCAACGCCGC TACTGTCTT 780
ATTCCGATTC AGATATCCTT GTCCAGTTCC TCTTCAACT GTTAACAGGT TATGGAACGG 840
ACTATGCTTG TAAAGAATTG TCAGCTGATG CCTACTTTCC AAAATTATTG GAAGGAGGGC 900
AGCTTGCTTC ACAGCCAACC TTATCCCGTT TTCTTTCCAG AACTGACGAG GAAACAGTCC 960
ATAGTTTGGC ATGCCTCAAC CTTGAATTGG TCGAATTCTT TTT 1003

(2) INFORMATION FOR SEQ ID NO: 379:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 738 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 379:

1391

CCGATGATTC TGATTGGTTT GCTCTTTACT TTGCTGGGAA TTTTGAGGTA GATCTATGAT	60
TGAAATACTA ATTGTTTTAG CTATTATCCT ATCTCTTGCT TTGATTGTAT TGGTAACTAT	120
ACAACCCCGT CAAATCAAC TATTTTCCAT GGATGCCACT AGTAATATTG GTAAACCAAG	180
CTACTGGCAG AGCAACACCT TGGTCAAGGT GCTCACTTTA TTGGTGAGTT TGGCTTTATT	240
TATTCTACTA TTAACCTTTA TGGTGATTAC TTATAAATAA AAGAAAACCT CAGATATTCA	300
CCTTTTGTGG ATTGGTCTGA AGTTTCTTTT TTTATACTCA ATGAAAATCA AAGAGCAAAC	360
TAGGAAGCTA GCCGCackGC TCAAAACACC GTTTTGAGGT TGTAGATATA ACTGACGAGc	420
GACTCAAAAC ACCGTTTTGA GGTGTAGAT ATAAGTACG AGcGACTCAA AACACCGTTT	480
TGAGGTTGTG GATAGAACTG ACGAGcGACT CAAACACCG TTTTGAGGTT GTGGATAGAA	540
CTGACGAAGT CgCTCAAAAC ACCGTTTTGA GGTGTGGAT AGAACTGACG AAtgctCAA	600
ACACCGTTTT GAGGTTGTGG ATAGAACTGA CGAAGCgaaC ATATATACAG CAAGGCGACG	660
CTGACGTGGT TTGAAGAGTA TTACTGTCTA TATTTTGGT AAAAATCAAC TTTTACTTGG	720
ATGAAGGTTT TTTTTTTT	738

(2) INFORMATION FOR SEQ ID NO: 380:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 695 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 380:

CCGTCTTATC AAAGAGGTTA ACAAAGGCAC CAAATTTCTC GATACGAACG ACTTTAGCAC	60
GGTAAACTTC ATCCACTTTG GCTTCACGAA CCAAACCAGC AATAATTTCT TTGGCAGGTT	120
TAATAGCATC TTGGTCACTA GAGTAGATAG ACACATTTCC TTCTTCGTCT ATATCAATCT	180
TAACACCTGT TTCAGCGATA ATCTGTGCGA TGGTTTCTCC ACCCTTACCG ATGACAATCT	240
TAATCTTGTC CACATCAATC TTGATCGTAT CAATTTTCGG AGCAGTTGGA GCCAATTCTG	300
GACGAACTTC TGGAATGGTT GCTTCAATGA CATCAAGGAT TTCAAAACGC GCTTTCTTGG	360
CTTGAGCAAG AGCCTCCGTC AAGATTTCTG CAGTAATCCC TTGAATCTTG ATATCCATTT	420
GAAGGGCTGT AATCCCATCA CGAGTACCTG CAACCTTGAA GTCCATATCT CCAAAGTGAT	480
CTTCCAAACC TTGGATATCT GTCAATACTG TGTAAGTATT TCCATCTGAG ATAAGCCCCA	540
TAGCAATACC AGCTACTGGC GCCTTGATTG GCACACCACC AGCCATAAGG GCAAGAGTTC	600

1392

CCGCACAGAT AGAAGCTTGA GATGAAGAAC CGTTTGATTG CAAAACCTTCT GCTACTAGAC	660
GGATAGCGTA GGGGAATTCT TCCAAGCTTG GCAGG	695

(2) INFORMATION FOR SEQ ID NO: 381:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 691 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 381:

GACATCTTAT CTAAATACAT GCTAATATAT TTAGATACAA ACATTCCAAC TTGATAATTT	60
TCACTCATCT TTCATCATTC CTTATACAAC TATGCAGTAT AAATAGAATA GTTTTCTCAT	120
CAGAATGAGA CTATTTTAAT ATTAGATCCC CAATTATTCA CCCCAAATCT AAAAACCATC	180
CAGAATCCTT GCCTTAGCTT AGATCCTGGA TGGTTTCTTT TTTCACCCAA TGGGTGTTTT	240
TTACTAGACA AAAAAGAGTT TCCCCTTTAT GGTATAAGTG TAGAAAAAAA CACAAAAAGA	300
AAGGAAACTC ACATGAACAG TTTACCAAAT CATCACTTCC AAAACAAGTC TTTTACCAA	360
CTATCTTTTCG ATGGAGGTCA TTTAACCAG TATGGTGGTC TTATCTTTTT TCAGGAACCT	420
TTTTCCCACT TGAAACTAAA AGAGCGGATT TCTAAGTATT TAGTAACGAA TGACCAACGC	480
CGCTACTGTC GTTATTCGGA TTCAGATATC CTTGTCCAGT TCCTCTTTCA ACTGTTAACA	540
GGTTATGGAA CGGACTATGC TTGTAAGAA TTGTCAGCTG ATGCCTACTT TCCAAAATTG	600
TTGGAAGGAG GGCAGCTTGC TTCACAGCCA ACCTTATCCC GwTTTCTTTC CAGAAGTGAC	660
GAGGAAACAG TCCATAGTTT GCGATGCCTC A	691

(2) INFORMATION FOR SEQ ID NO: 382:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 750 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 382:

ATCTCTCTGC GTAATGGTCC TCAGATAACT CTGATGATGT GTGGCGATAT AGAACTGAGC	60
CAAGTTATGC CTAAAGGGCC TTAGGAATAG GAGCTTTCAC AAGCTTATCC AGATGATTAT	120
CTTTTACTCG TTATGGACAA TGCTATATGG CATAAATCAA GTACCTTAAA GATTCCGACT	180
AATATTGGCT TTGCATTTAT TCCTCCATAC ACACCAGAGA TGAACCCCAT TGAACAAGTG	240

1393

TGGAAAGAGA TTCGTAAACG TGGATTTAAG AATAAAGCCT TTCGAACTTT GGAAGATGTC	300
ATACAAGGAC TGGAGAAGGA GGTGATAAAG TCCATCGTTA ATCGGAGACG GACTAGAATG	360
CTTTTGAAGA ACAGATGAGT ATAAAAAGAA AGTCCTCATT TCAATAGAAA TCACGACTTT	420
CTGATGAATT TATAGTAAAA TGAAATAAGA ACAGGATAGT CAAATCGATT TCTAACAATG	480
TTTGTAGAAGC AGAGGTGTAC TATCTAGTT TAAATCCACT ATATTTGGGG AGTGATAGAA	540
AAGCCCTTCA TCAGCCAATC TACTTGTTC A GGTGCGAGAG CTTTGACATC CTTTCTGTGA	600
CTGGACCAAG TCAGTTTTC GTTCTCAAAG CGTTTATATA ATATCCAAA TCCTTGACCA	660
TCCCAGTAAA GAACTTTAAA GCGGTCTTTA CGTCCACCAC AAAAGAGAAA GACTTGATCG	720
GAGAAAGGAT CCAATTCAAA GTGGGTTTGG	750

(2) INFORMATION FOR SEQ ID NO: 383:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 738 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 383:

TCAAATTCCT CGTGGTCCGC ATATCTnTCT TCGTACACGG CAGTCACCTG GTCTTTCCT	60
ACTCGAGTCG CAGCTTCACG GGCCAATTTC TCTTCTACTT GAACTGCCTT TTGGAGGTCA	120
CTGTTGTAGG CTGCAATGAT TTCAGCTTGC AATTCAGCAT CCACGTGAAG CAATTCCACT	180
TCTGCTTTT CTTTACCGAC AGCAGCAACG ATTTCTTCTT GGAAGGCAAT CAATTCTTTG	240
ACAGCTTCGT GCCCTTTAAG GAGCGCTTCC AACATGATTT CTTCTGACAA TTCTTTGGCA	300
CCAGACTCTA CCATGTTGAT AGCGTGCTTG GTTCCAGCTA CTGTCAATTC AAGAAGAGAT	360
TGCTCTGCTT GTTCTTGACT TGGGTTGATG ATGATTGGC CATCTACATA TCCCCTTGT	420
ACCCAGCAA TTGGTCCGTC AAATGGAATA TCTGAAATAG ACAGTGCCAA AGATGAACCA	480
AACATAGCAG CCATTGGTGC AGATGCATTT TCATCATAAG AAAGCACTGT ATTGATGACT	540
TGGACTTCAT TACGGAAC TCCGCAAAC ATAGGACGAA TCGGACGGTC AATCAAACGC	600
GCTGTCAAGG TCGCATCTGT TGAAGGACGT CCTTCACGTT TCATAAAGCC ACCAGGAAAC	660
TTCCCAGCCG CATACATTTT TTCTTCGTAG TTGACTTGA GTGGGAAGAA ATCCTCAGTT	720
GCCATTTTCT GGGGATCC	738

(2) INFORMATION FOR SEQ ID NO: 384:

1394

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 657 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 384:

CCCCCTATTT ACCGTGGACT AAAGTTGTAC AAGAAAAGTG CAAATAAGAA ATCTCCAGAT	60
TAGGAACATAT ATATGAGTTC TCTAGTCTGG AGATTTTTC AATAGACTTCG TTATTGGGCG	120
GTTACTTTTCG AAACCTTGAA AACTTCAAAA AACGGATTTT TATCGCTTTC AAATTCTTTT	180
GGGGTCAAAC TCAGTAACTT ATTCGCCTTG TAGACTTCAT GACGCTCAGG GTATACTTTC	240
AAGGTCCCAA ATAGCCAAGA ATCGTCAGCG ATATTATCTG AATCATCTCC TTCTTGTCT	300
CCTTTAGTTC GCCTGAGGAC AGCCTTGACA CGCGCCAGAA TTCTCTAGGG CTAAAAGGCT	360
TGGTCAGGTA GTCATCAGCC CCTAATTCCA AGGCCAAAAC CTTATCAAAT TCATCACTTT	420
TCGCAGAAAC CATCATAATT GGAGTTTGA CGCCTTTGGC TCTCAGCCGC TTACAACTT	480
CCATGCCATC TAATTGTGGT AACATGATAT CAAGCAAGAT AAAATCAAAG GGTTCGTGTT	540
CTGCCAAAGC TAAGGCCTTC CGTCCATTG TCACCAATTG AGTAGAAAAG CCTTCCTTAC	600
TTAAATGGTA GTCAAGCAAT TTCAGAATGT GTTCTTCATC ATCCACTAAT AAGACTT	657

(2) INFORMATION FOR SEQ ID NO: 385:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 586 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 385:

CCGCATCAGC ATCAACGAGT GCATCGGCTT CACGTCAACC AGTGCATCAG TCTCAGCAAG	60
CACCAAGTGC TCGGCTTCAG CATCAACGAG TGCCTCAGCC TCAGCAAGTA TCTCAGCGTC	120
TGAATCGGCA TCAACGAGTG CGTCAGCTCA GCAAGTACTA GTGCATCGGC TTCAGCAAGC	180
ACCAGTGGT CGGCTTCAGC ATCAACGAGT GCCTCAGCCT CAGCAAGTAT CTCAGCGTCT	240
GAATCGGCAT CAACGAGTGC GTCACCTCAG CAAGTACTAG TGCATCAGCA TCAGCATCAA	300
CGAGTGCATC GGCTTCAGCA AGTACCAGCG CCTCAGCTTC AGCAAGCACC AGTGGGTAC	360
CTCAGCAAGT ACCAGCGCCT CAGCCTCAGC AAGCACCAGT GCCTCAGCTT CAGCAAGTAC	420
CAGTGGCTCA CCTCAGCATC GACAAGTGGC TCGGCTTCAG CAAGTACCTC AGCGTCTGAA	480

1395

TCAGCATCAA CGAGTGGCTC AGCTTCAGCA TCAACCAAGTG CCTCAGCCTC AGCAAGTATC 540
AGTGGCTCAG CTTCAGCATC AACGAGTGGC TCAGCTGCAG CAAGTA 586

(2) INFORMATION FOR SEQ ID NO: 386:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 451 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 386:

CGTCGGCTTC AGCATCAACG AGTGCATCAG CTTCAGCATC AACAAAGTGCT TCAGCTTCAG 60
CAAGTACCAG TGGCTCGGCT TCAGCATCAA CGAGTGGCTC AGTCTCAGCG TCAACCAAGTG 120
CCTCTGAATC CGCATCAACA AGTGCCTCGG CTTCAGCAAG CACCAGTGCT TCGGCTTCAG 180
CGTCAACGAG TGGCTCTGAG TCAGCATCAA CGAGTGGCTC ACCTCAGCAA GCACATCAGC 240
TTCTGAATCT GCATCAACCA GTGCGTCAGC TTCCGCATCA ACAAGCGCCT CGGCCTCAGC 300
AAGTACAAGT GCTTCAGCCT CAGCATCAAC CAGTGCATCA GCTTCAGCCT CAACAAGTGC 360
TTCAGCCTCA GCGTCAACCA GTGCCTCGGC TTCAGCAAGT ACCAGTGGCT CAGTTcAGCA 420
AGCACAAAGT CGTCAATTTA GCATCAACCA G 451

(2) INFORMATION FOR SEQ ID NO: 387:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 425 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 387:

TCTCAGCAAG CACCATTTGGC TCGGCTTCAT CAAGCACCAG CGCGTTTGAA TCCGCATCAA 60
CCAGTGCTTC AGCTTCAGCC AAGTTACCTC AGCATCTGAA TCAGCATCAA CAAGTGCATC 120
GGCTTCAGCA AGCACAAAGT CTTCAGCtCA GCAAGTATCT CAGCGTCTGA ATCGGCATCA 180
ACGAGTGGCT CCGCTTCAGC AAGTACTAGC GCCTCAGCAT CAGCGTCAAC AAGTGCTTCG 240
GCTTCAGCGT CAACGAGTGC GTCTGAGTCA GCATCAACGA GTACGTGAGC CTCAGCAAGC 300
ACATCAGCTT CTGAATCTGC ATCAACCAAGT GCGTCAGCCT CAGCATCGAC AAGCGCCTCA 360
GCTTCAGCAA GTACCAGTGC GTCAGCCTCA GCAAGTACCA GTGCTTCAGC CTCAGCGTCG 420

ACAAG

1396

425

(2) INFORMATION FOR SEQ ID NO: 388:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 572 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 388:

AGAGGATCCC CGGATCCTCA GTCGCTGAGA TAACTCCTTT GGGCTTGTTT ATCATGTAGT	60
AGACAAACTC TTCATACTCC AACACTTGCC CATTTTATGC GAATCTCATC TATTTTTTCT	120
TTTTTTTGCA ATTTAGCTGA TTTTCTTTT TTACCATTTA CAGTCACGGG CCCAGCCTTG	180
AGCAAGTTTT TGACCTCAGT CCGACTTCCC ACCGCACAGG CAACTAAAAA TTTATCTAAT	240
CTCATAGAAC TATTATATCA TATCAAAAGG AGGCTAGTAC AATGACCAAC CTCCTTTTCG	300
TTTCATACTC TTCAAAAATC TCTTCAAACC GCGTCAACGT CGCCTTGCCG TATATATGTT	360
ACTGACTTCG TCAGTTCTAT CTGCAACCTC AAAACAGTGT TTTGAGCTGA CTTGCTCAGT	420
TCTATCTGCA ACCTCAAAGC AGTGCTTTGA GCATCCTGCG GCTAGTTTCC kAGTktGCTC	480
TTTGATTTC ATTGAGTATC AGATTTAGGA AATTAAC TTCGkCTCCA AAAAakAGCT	540
AAAACAATCA AGGCTCCTAA AATCGCTGGG AT	572

(2) INFORMATION FOR SEQ ID NO: 389:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 505 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 389:

CAACAAGTGC CTCGGCTTCA GCATGCACAA GTGCTTCAGC TTCAGCATGT ACCTGAGCGT	60
CTGAATCAGC ATCAACGTGT GCGTCCGCTT CAGCATGTAC TGCTGCCTCA GCATCAGCGT	120
CAACawGTGC TTCGGCTTCA GCGTCAACGA GTGCGTCTGA GTCAGCATCA ACGAGTACGT	180
CAGCCTCAGC AAGCACATCA GCTTCTGAAT CTGCATCAAC CAGTGCGTCA GCCTCAGCAT	240
CGACAAGCGC CTCAGCTTCA GCAAGTACCA GTGCGTCAGC CTCAGCAAGT ACCAGTGCTT	300
CAGCCTCAGC GTCGACAAGT GCGTCGGCCT CAACCAAGTGC ATCTGAATCG GCATCAACCA	360
GTGCGTCAGC CTCAGCAAGT ACTAGCGCCT CAGCCTCAGC ATCAACGAGT GCGTCCGCTT	420

1397

CAGCAAGTAC TAGTGCATCA GCATCAGCAT CAACGAGTGC ATCGGCTTCA GCAAGTACCA 480
GCGCCTCAGC TTCAGCAAGC ACCGG 505

(2) INFORMATION FOR SEQ ID NO: 390:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 447 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 390:

GCTAAGACTA CCTCATTAGG GGCATAGGCT GCTAAAATAA CTGCAGCTGT GGTTAATGAC 60
AATACTGTAC TTTTTCAT TTTAATTCCT TACATATTTA TATAACTTCC AATAGATAAT 120
AAACTTTAAC TTGCTAGCC TTGTGTATAA AAAGTTTAC TAAGTATTAT CTAGGAAATA 180
GAGTAGTACA TTTATATATA ATTGTTATCT CTCTATAAAA ACAGTATATC ATTTAAAAAA 240
ATTTAAGTCA AAAAAATTAA CATTAGTTAA TTTATTTTTC AGCACACATT AAAAAATAAG 300
ATTAGTACTC AATGAAAATC AAAGAGCAAA CTAGGAAACT AGCCGCAGAT TGCTCAAAAC 360
AGTGTTTTGA GGTGTAGAT GGAATGACGT AGTCAGCTCA AAACACTGTT TTGAAGTTGT 420
GGATAGAACT GACGAAGTCG GTACCGA 447

(2) INFORMATION FOR SEQ ID NO: 391:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 572 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 391:

AGCACTTGTC GTTGAATTCT ACAACAAAAT GTTGAATAT TTTATTGAAT AAGATAGGCC 60
TTGATATTAA GCACTTTGGG ACGTCTCCC TTAGTGCTTT TTTGATTCT CTAGTATCC 120
AGCTATAATC GTTGAGACAT AACTAGACCG ATATAGTCCA AAGTGATATA GTAAAATGAA 180
CCAAAAATAG TACACAATGT GGTATAATCC TTTTATGGCA TATTCAATAG ATTTTCGTAA 240
AAAAGTTCTC TCTTATTGTG AGCGAACAGG TAGTATAACA GAAGCATCAC ACGTTTTCCT 300
AATCTCACGT AATACCATTT ATGGCTGGTT AAAGCTAAAA GAGAAAACAG GAGAGCTAAA 360
CCACCAAGTA TAGTGATTG AATCTATAAC AGTACACCTT GGCTGCTAAA ATATTCTAT 420

1398
AAATTAATTT GACTTTCCTG ATAGAGATGT TCACATCTTA TTTCAAATA CTATATAAGT 480
TCTATAATCT CTTTATAAGA TTGCCCCATC AGACAAAATA GAACGATTG AAGGCGTTTA 540
TGATATTTAG CTGTACGAGA GTCTTTTAAA AG 572

MISSING UPON TIME OF PUBLICATION

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person approved by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PUT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant, any request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by the applicant in the individual case.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the International publication of the application.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapse, the microorganism shall be made available as provided in Rule 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever two dates occurs earlier.

SINGAPORE

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for international publication of the application.

NORWAY

The applicant hereby requests that, until the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegians Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Registration), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

ICELAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the Icelandic Patent Office), or has been finally decided upon by the Icelandic Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected in the art.

What Is Claimed Is:

- 25 1. Computer readable medium having recorded thereon the nucleotide sequence depicted in SEQ ID NOS:1-391, a representative fragment thereof or a nucleotide sequence at least 95% identical to a nucleotide sequence depicted in SEQ ID NOS:1-391.
- 30 2. Computer readable medium having recorded thereon any one of the fragments of SEQ ID NOS:1-391 depicted in Tables 2 and 3 or a degenerate variant thereof.
- 35 3. The computer readable medium of claim 1, wherein said medium is selected from the group consisting of a floppy disc, a hard disc, random access memory (RAM), read only memory (ROM), and CD-ROM.
- 40 4. The computer readable medium of claim 3, wherein said medium is selected from the group consisting of a floppy disc, a hard disc, random access memory (RAM), read only memory (ROM), and CD-ROM.
5. A computer-based system for identifying fragments of the *Streptococcus pneumoniae* genome of commercial importance comprising the following elements:
- 45 a) a data storage means comprising the nucleotide sequence of SEQ ID NOS:1-391, a representative fragment thereof, or a nucleotide sequence at least 95% identical to a nucleotide sequence of SEQ ID NOS:1-391;
- b) search means for comparing a target sequence to the nucleotide sequence of the data storage means of step (a) to identify homologous sequence(s), and
- 50 c) retrieval means for obtaining said homologous sequence(s) of step (b).
6. A method for identifying commercially important nucleic acid fragments of the *Streptococcus pneumoniae* genome comprising the step of comparing a database comprising the nucleotide sequences depicted in SEQ ID NOS:1-391, a representative fragment thereof, or a nucleotide sequence at least 95% identical to a nucleotide sequence of SEQ ID NOS:1-391 with a target sequence to obtain a
- 55 nucleic acid molecule comprised of a complementary nucleotide sequence to said target sequence, wherein said target sequence is not randomly selected.

60 7. A method for identifying an expression modulating fragment of
Streptococcus pneumoniae genome comprising the step of comparing a database
comprising the nucleotide sequences depicted in SEQ ID NOS:1-391, a
representative fragment thereof, or a nucleotide sequence at least 95% identical to
the nucleotide sequence of SEQ ID NOS:1-391 with a target sequence to obtain a
nucleic acid molecule comprised of a complementary nucleotide sequence to said
65 target sequence, wherein said target sequence comprises sequences known to
regulate gene expression.

70 8. An isolated protein-encoding nucleic acid fragment of the *Streptococcus*
pneumoniae genome, wherein said fragment consists of the nucleotide sequence of
any one of the fragments of SEQ ID NOS:1-391 depicted in Tables 2 and 3, or a
degenerate variant thereof.

75 9. A vector comprising any one of the fragments of the *Streptococcus*
pneumoniae genome SEQ ID NOS:1-391 depicted in Tables 2 and 3 or a
degenerate variant thereof.

80 10. An isolated fragment of the *Streptococcus pneumoniae* genome,
wherein said fragment modulates the expression of an operably linked open reading
frame, wherein said fragment consists of the nucleotide sequence from about 10 to
200 bases in length which is 5' to any one of the open reading frames depicted in
Tables 2 and 3 or a degenerate variant thereof.

85 11. A vector comprising any one of the fragments of the *Streptococcus*
pneumoniae genome of claim 8.

12. An organism which has been altered to contain any one of the
fragments of the *Streptococcus pneumoniae* genome of claim 8.

90 13. An organism which has been altered to contain any one of the
fragments of the *Streptococcus pneumoniae* genome of claim 10.

14. A method for regulating the expression of a nucleic acid molecule comprising the step of covalently attaching to said nucleic acid molecule a nucleic acid molecule consisting of the nucleotide sequence from about 10 to 100 bases 5' to any one of the fragments of the *Streptococcus pneumoniae* genome depicted in SEQ ID NOS:1-391 and Tables 2 and 3 or a degenerate variant thereof.

15. An isolated nucleic acid molecule encoding a homolog of any of the fragments of the *Streptococcus pneumoniae* genome of SEQ ID NOS:1-391 and Tables 2 and 3, wherein said nucleic acid molecule is produced by a process comprising steps of:

a) screening a genomic DNA library using as a probe a target sequence defined by any of SEQ ID NOS:1-391 and Tables 2 and 3, including fragments thereof;

b) identifying members of said library which contain sequences that hybridize to said target sequence; and

c) isolating the nucleic acid molecules from said members identified in step (b).

16. An isolated DNA molecule encoding a homolog of any one of the fragments of the *Streptococcus pneumoniae* genome of SEQ ID NOS:1-391 and Tables 2 and 3, wherein said nucleic acid molecule is produced a process comprising steps of:

a) isolating mRNA, DNA, or cDNA produced from an organism;

b) amplifying nucleic acid molecules whose nucleotide sequence is homologous to amplification primers derived from said fragment of said *Streptococcus pneumoniae* genome to prime said amplification;

c) isolating said amplified sequences produced in step (b).

17. An isolated polypeptide encoded by any of the fragments of the *Streptococcus pneumoniae* genome of SEQ ID NOS:1-391 and depicted in Table 2 and 3 or by a degenerate variant of said fragments.

18. An isolated polynucleotide molecule encoding any one of the polypeptides of claim 17.

19. An antibody which selectively binds to any one of the polypeptides of claim 17.

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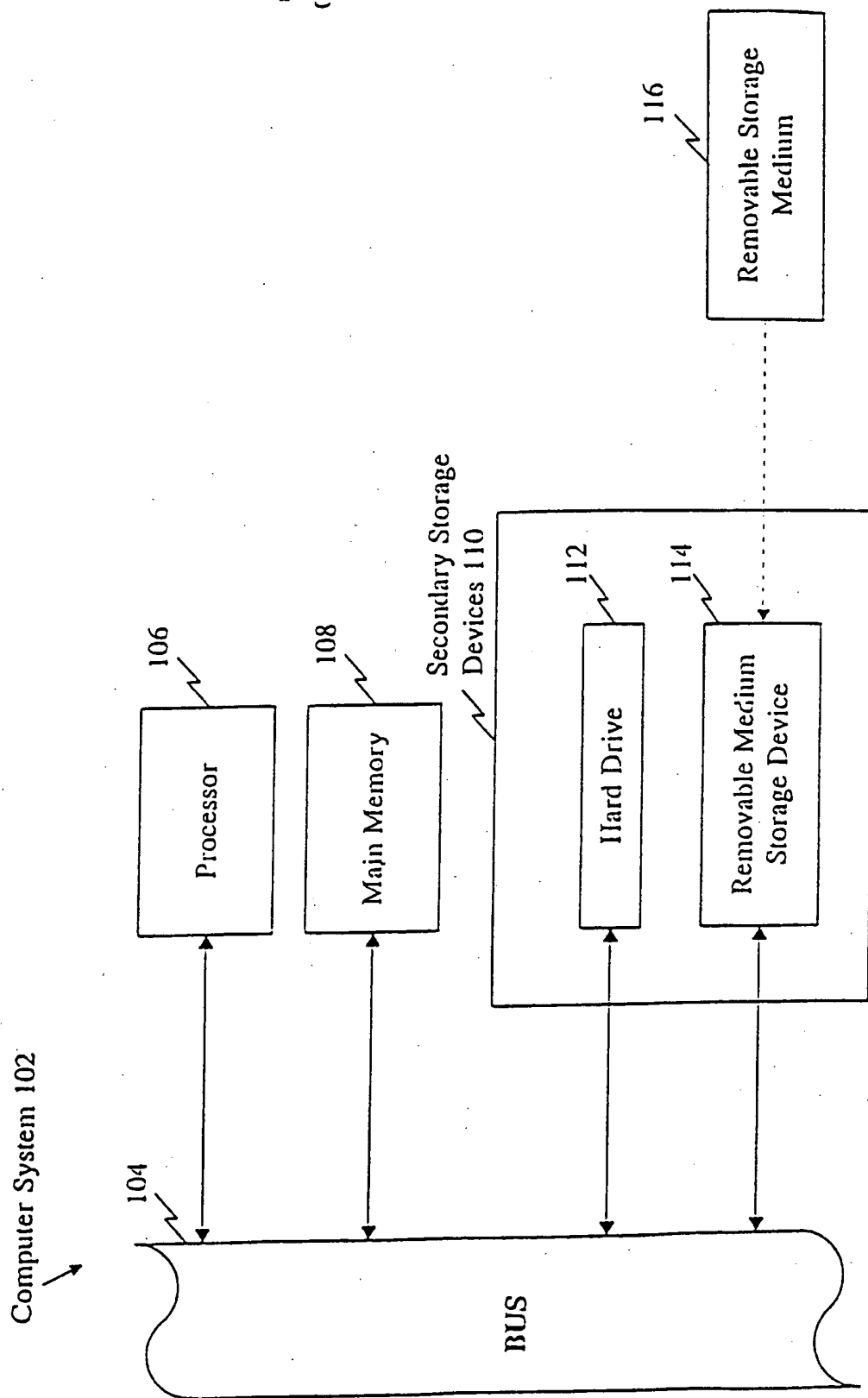
20. A method for producing a polypeptide in a host cell comprising the steps of:

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a) incubating a host containing a heterologous nucleic acid molecule whose nucleotide sequence consists of any one of the fragments of the *Streptococcus pneumoniae* genome of SEQ ID NOS:1-391 and depicted in Tables 2 and 3, under conditions where said heterologous nucleic acid molecule is expressed to produce said protein, and

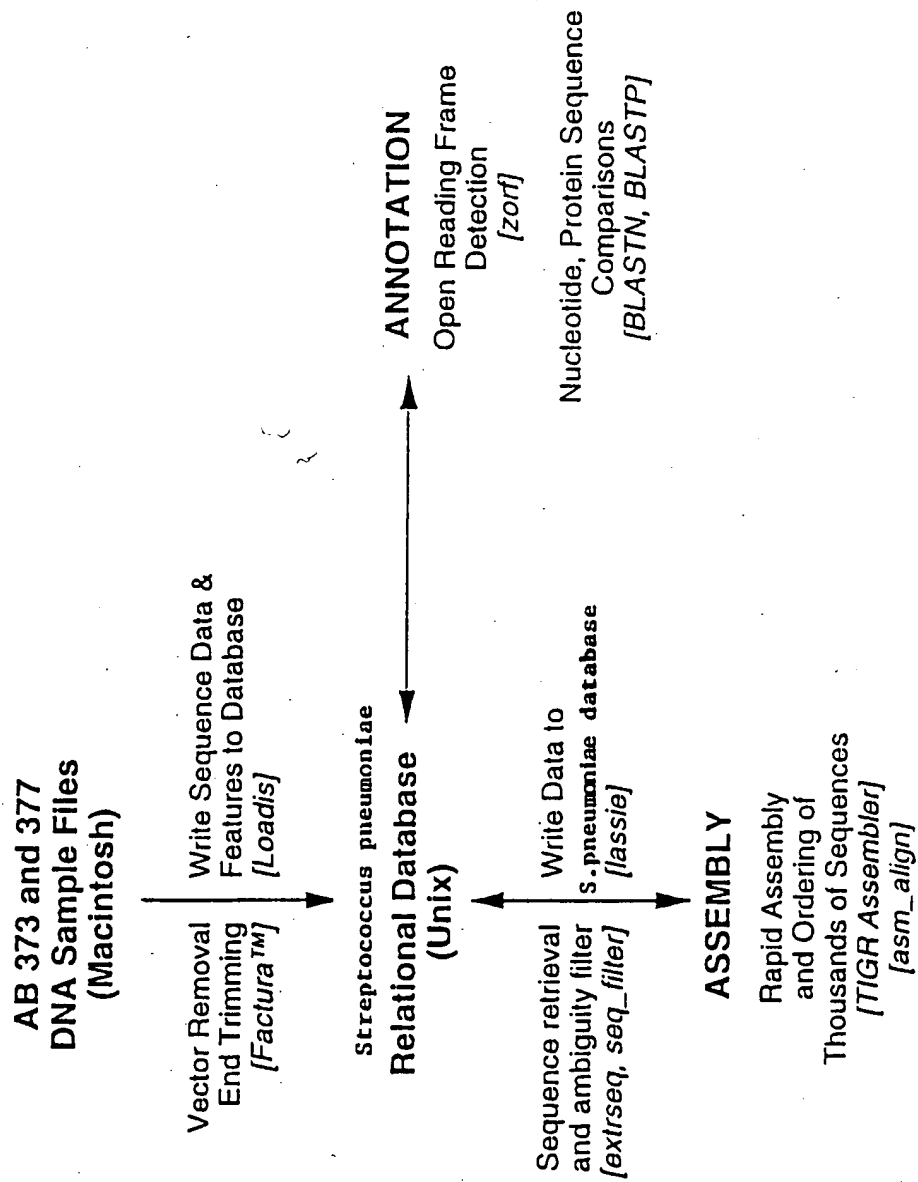
b) isolating said protein.

Figure 1



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Figure 2



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